BULKY DOCUMENTS

(exceeds 300 pages)

Proceeding/Serial No: 9116319

Filed: 3-20-07

Title: Deposition of Joel Young, Jan McBride,

And Brenda Mueller

Certified Exibits #'s 1 through 54 to Depositions Listed

Part 2 of 3

point-of-sale station providers would be considered competitors in that respect.

Q. When did you introduce it?

A. Must have been maybe a year ago, plus or minus. I don't remember the exact date.

MR. ANISSIMOFF: I would appreciate an exact date.

And I don't know if there is any mechanism for asking for another date. Can you give me that date?

Anyway, I think I will request it.

MS. STOLT: I think we can locate it. I am just not sure where it is right now.

BY MR. ANISSIMOFF:

Q. And when you introduced that device, did you create a new category of competitor at that precise point in time?

A. Yes.

Q. As and from that date.

Before you didn't have a competitor in our client, but afterwards you say you do, fair?

MR. BOYLE: Objection to the extent it calls for a legal conclusion.

MR. ANISSIMOFF: Competitor is a factual matter, and I think the witness understands things perfectly.

BY MR. ANISSIMOFF:

Q. Prior to you introducing this -- that product, you never viewed our client as a competitor, correct?

MR. BOYLE: I am going to object to the extent it mischaracterizes the prior testimony.

MR. ANISSIMOFF: Anyways, you will give me the date on which the product was introduced?

MS. STOLT: Uh-huh. And we are talking specifically now about the Digi port -- or the Digi ConnectPort Display product?

MR. ANISSIMOFF: It is. And as I recall the witness's evidence in chief, if I am not misstating it, is that is a directly competitive product.

BY MR. ANISSIMOFF:

Q. You also, with reference to Exhibit, I believe, 31 -- there was a group of documents having to do with us.

When did you first see those documents?

A. Which one, this one?

Q. Exhibit 31. Yes.

A. Oh, maybe a month ago.

Q. How were they prepared? By you or by someone?

A. Not by me. I don't know who prepared them.

Q. But about a month ago you looked at them for the first time?

A. Yes.

Q. Now, I am not sure what page it is, but I think it's page 13. There is the Circuit City example.

Do you recall giving testimony about Circuit City?

A. Yes.

Q. And, generally, as I understand the Circuit City matter, our client sold a number of point-of-sale systems to Circuit City; it was a very large order.

Do you know that, or --

A. How big your order -- no. I know that you -- DigiPos sold to Circuit City.

Q. And what was -- this is maybe where I could

repay the compliment to you, but the purpose was to organize, computerize and structure their point-of-sale activities in their stores; is that right?

A. That's what it seems to say, yes.

Q. You have no reason to think otherwise?

A. No.

Q. So what were you telling us about -- well, it also says, in the third paragraph, "The DigiPoS units were identified as the first choice solution," and it's cut off.

"Circuit City only after a rigorous selection process, which saw DigiPoS Systems excel over several other established, traditional POS suppliers."

Do you know or not know whether any of your equipment that we discussed before was considered in that rigorous selection process, or do you have no knowledge?

A. I have no knowledge.

Q. And do you know who established traditional POS suppliers might be, or do you have no knowledge?

A. I don't know who those would be.

Q. And apart from that document, would you have

any notion or idea who a traditional POS supplier might be in the marketplace?

A. I could probably come up with a list of who might be, yes.

Q. Let's -- could we just do three?

Would NCR be one, if I am remembering my initials?

A. NCR would be one, yes.

Q. Another one?

A. IBM.

Q. Another good choice.

And a third one, please, sir?

A. Actually, Dell.

Q. Now, you mentioned something about what you do vis-a-vis Circuit City, and, obviously, you don't sell them point-of-sale equipment of any kind, or, indeed, your equipment, if I understand your evidence, for use in their point-of-sale activities.

Are you saying you sell the product which is on their shelves?

A. I don't know if we sell or don't sell products to Circuit City.

Q. I thought -- and I may be wrong, Marsha -- but I thought you said that Circuit City is

a customer of yours.

A. No, I did not say that.

Q. Thank you.

A. They might be. I wouldn't -- I don't know one way or the other.

Q. So one way or another, you don't know?

A. (Witness indicating in the negative.)

Q. I am almost finished.

Now, we also saw today the Retail Blade materials, Exhibit 32.

When did you see these materials for the first time?

A. About a month ago, the same time I saw the Exhibit 31 material.

Q. I am not asking for business confidential information or anything of the sort, but in attending regular executive meetings at your company, when was the first time, to your knowledge, if it ever happened, was my client, the applicant for registration, in this particular case, identified by you as a competitor by your company?

A. As I said, close to the time of the launch of the ConnectPort Display. Their name was on a list among other competitors; I

remember seeing that.

But I can't tell you the exact meeting or location or time.

Q. Fair enough. And the date might help us there.

Now, in terms of the Retail Blade product -- and I have my own objections to all of this -- but in what sense is Retail Blade is direct competitor to your products or product and what product?

A. Well, the -- when you look at the hardware, it's a point-of-sale-specific hardware platform, both in the client and the thin client.

So all point-of-sale-specific hardware specific clients we view as competitors to our zero-client platform. We see our zero-client platform as being kind of a new model, a new way, of doing point-of-sale transactions.

Q. I think I understand that.

You view that as a new, different and improved way of --

A. Uh-huh. So anybody producing point-of-sale client type hardware products would be,

naturally, seen as a competitor.

Q. Your company would now view them as a competitor?

A. Yes.

Q. Just one item of business.

I didn't have any time to review the answers to your Interrogatories completely, but for the time being, I base my objection on Interrogatory number 48.

The question was "Identify and describe the approximate date, manner and under what circumstances Opposer or any one of its officers, directors or managing agents first became aware of the applicant and (B) the applicant's mark, DigiPos, and specify the identity of the persons who made the discovery and from what source such information was obtained."

The Answer, at 48, was "Opposer objects to this Interrogatory to the extent that it seems information covered by attorney-client privilege. Subject to and without waiving such objection, Opposer states that it subscribes to a worldwide watch service for the Digi mark and received

watch notices relating to applicant's mark." That's at 48.

And at 53, "Identify each person opposer expects to call and state" -- no, sorry, strike that.

This is just one of a number of questions where I asked for the -- you to identify all documents and physical exhibits which Opposer expects to introduce into the evidence.

And Opposer states that it -- and that was refused.

And I confirm, for my own part, that the documents at Exhibit 31 and the Retail Blade documents at Exhibit 32 I have seen for the first time today.

MR. ANISSIMOFF: Off the record.

(A recess was taken.)

FURTHER EXAMINATION

BY MR. BOYLE:

Q. Going back, just to clarify for the record, I think we need to clarify, but I want to be sure.

Earlier I had you look at and identify Exhibits 1 through 26.

Do you see that?

A. Yes.

Q. And were these snapshots of previous web site pages for these particular products that predate what's on the system right now?

A. Uh-huh.

Q. Is that a yes?

A. Yes.

Q. And those were maintained by the company on the web site in the ordinary course of business?

A. Yes.

Q. And is it your understanding those are true and accurate copies of those snapshots -- the historical snapshots of the web site at that time?

A. Yes, as I understand.

Q. And would those snapshots that are in

Exhibits 1 through 26 relate to the copyright dates that are at the end of each of those subject data sheets?

A. Yes, they should.

Q. And then I also had you look at more current versions, which are Exhibits 27 through 30, today.

A. Yes.

Q. And do those represent current versions of data sheets and other information that's on the Digi web site at this time?

A. Yes.

Q. And are those true and accurate copies?

A. Yes.

Q. And are those maintained and kept in the ordinary course of business at Digi?

A. Yes, as far as I know.

Q. Just to clarify a couple points of your testimony, so you are clear.

Do I understand that Digi in some circumstances sells to end users?

A. Yes, that's correct.

Q. And Digi sells to original equipment manufacturers?

A. Yes.

Q. And then Digi sells to, I guess what we have referred to today, as resellers or integrators?
A. Yes, correct.
Q. And those were people that actually would take the product and put it in an application for a customer of theirs?
A. Yes.
Q. So in short, Digi sells in three different types of categories in three different channels?
A. Correct, yes.
Q. How long has Digi been selling products utilized in POS applications?
A. Boy, since the beginning, as far as I know. I mean, the Digi boards or the multi-port serial cards, for all knowledge that I have in the business since I started, of course, only in 2000, that they have always been used in point-of-sale applications, as well as some of these other verticals that we discussed.
Q. And when you talk about the beginning, does this go back to the late 1980s?
A. Yeah, '80s, whenever the products were

released initially, as far as I know.

Q. And you testified to this a bit earlier, but to the extent that other manufacturers are selling POS products, does Digi consider them to be competitors?

A. Yes. I think we talked earlier about how sometimes people are both competitors and partners. And so sometimes people can buy our products and yet we might also view them as competitors.

Q. And then you also testified that in the particular case of Retail Blade that we looked at, that's a direct competitor today of Digi's ConnectPort Display zero-client product?

A. Yes.

MR. BOYLE: Counsel, not to put you on the spot, but I am told by co-counsel here that you may be right, that this snapshot off the web page of DigiPos's Retail Blade product in Exhibit 32 may not have been produced.

But did you -- we understand you did produce some other publications or materials related to Retail Blade?

MR. ANISSIMOFF: That would be correct.

I am objecting -- if we are on the record, yes, as part of answering questions in the Interrogatory and producing documentation, we have, as part of larger productions, produced documents which have referred to Retail Blade in our submissions.

It's our position that those documents are irrelevant for the purpose of this proceeding.

MS. STOLT: Can we clarify for the record that the Retail Blade product is sold under the DigiPos brand name?

MR. ANISSIMOFF: No, we can't.

Off the record.

(A discussion was held off the record.)

MR. BOYLE: That's all the questions I have.

MR. ANISSIMOFF: I am obliged to you both. I am obliged to the witness. Thank you.

MR. BOYLE: And we will exercise the right to read and sign.

STATE OF MINNESOTA)
) ss
COUNTY OF HENNEPIN)

Be it known that I took the foregoing deposition;

That I was then and there a Notary Public in and for the County of Hennepin, State of Minnesota, and that by virtue thereof, I was duly authorized to administer an oath;

That the witness before testifying was by me first duly sworn to testify the whole truth and nothing but the truth relative to said cause;

That the testimony of said witness was recorded in Stenotype by myself and transcribed into typewriting under my direction, and that the deposition is a true record of the testimony given by the witness to the best of my ability;

That I am not related to any of the parties hereto nor interested in the outcome of the action;

That the reading and signing of the deposition by the witness was executed as evidenced by the preceding page;

That Notice of Filing was waived.

WITNESS MY HAND AND SEAL THIS 19th day of October, 2006.

Kathy L. Soper, RPR
Court Reporter

KATHY L SOPER
NOTARY PUBLIC - MINNESOTA
My Commission Expires Jan. 31, 2010

CASE: Digi International vs.
DigiPos Systems
WITNESS: JOEL YOUNG
DATE: October 16, 2006

I, JOEL YOUNG, do hereby certify that I have read the foregoing transcript of my Deposition, and believe the same to be true and correct, (or, except as follows, noting the page and the line number of the change or addition desired and the reason why);

PAGE	LINE	CORRECTION	REASON
7	1	Transcrypt	spelling
7	6	International	spelling
67	24	Predominantly	spelling
70	13	placed	correction
72	13	add "most" before all	correction
74	5	plus power not power plus	correction
101	10	Connect Wan	correction

JOEL YOUNG

Dated 11/14/06.

Within 30 days, please send all other parties a copy of this correction sheet, and return the original to:

Mr. John Boyle
Moss & Barnett
90 S. 7th Street, Suite 4800
Minneapolis, MN 55402

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE TRADEMARK TRIAL AND APPEAL BOARD

Digi International Inc.,

Opposer,

vs.

Opposition Number 91163719

Serial No. 76/561,585

DigiPos Systems Inc.

Applicant.

ORIGINAL EXHIBITS

TO THE DEPOSITIONS OF

JOEL YOUNG

JAN McBRIDE

BRENDA MUELLER

REPORTED BY: Kathy L. Soper, CSR, RPR

California CSR No. 8519

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Digi

Connectware™

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Advanced Search

Product List

Product Selector

News and Announcements

- **Digi International Survey Reveals Adoption of Wireless Device Connectivity Continues Despite Economic Conditions**
- **Digi International Announces World's First Wireless Multiport Terminal Server**
- **Digi International Reports Fiscal 2001 Second Quarter Results**
- **Digi International Announces Its First Wireless Product**
- **Digi International Expands Global Reach Into Asian Markets; Bank of China Signs 3-Year Purchase Agreement for Terminal Servers**

Solutions

Partners

Support and Training

Corporate Info

Industrial Automation

Digi International provides connectivity from your industrial automation application to Ethernet or directly to the server through our server-based and network attached communication hardware products.
> more info

Point of Sale/Kiosk

Digi has been providing easy-to-use, reliable, and high-performing serial connectivity solutions for over 15 years. The Digi AccelePort family of multiport serial adapters provide the connectivity options required for today's peripheral control applications..
> more info

News Spotlight

Digi Announces First 802.11b Wireless Multiport Terminal Server
Digi's PortServer Wireless brings next-generation connectivity to your company's critical serial devices by providing untethered access to your wireless LAN. This new product combines the benefits of 802.11b wireless technology with proven asynchronous connectivity.
> more info

EXHIBIT
Young Ex. 1
10/16/06

DII 00160

MiLAN Technology	Inside Out Networks
A global provider of physical layer networking products including media converters, transceivers, hubs, switches, network print servers and fault-tolerant transceivers.	USB products for today's business users who need hub, multiple-serial, modem or parallel device connectivity for their PCs or Macs.

Digi International | 11001 Bren Road East | Minnetonka, MN 55343 | USA
INFO: (952) 912-3444 or 800-344-4273 | **FAX:** (952) 912-4952

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DII 00161

Rapidport

FOUR 56K V.90 MODEMS

Inside Out NETWORKS

Digi Connectware™

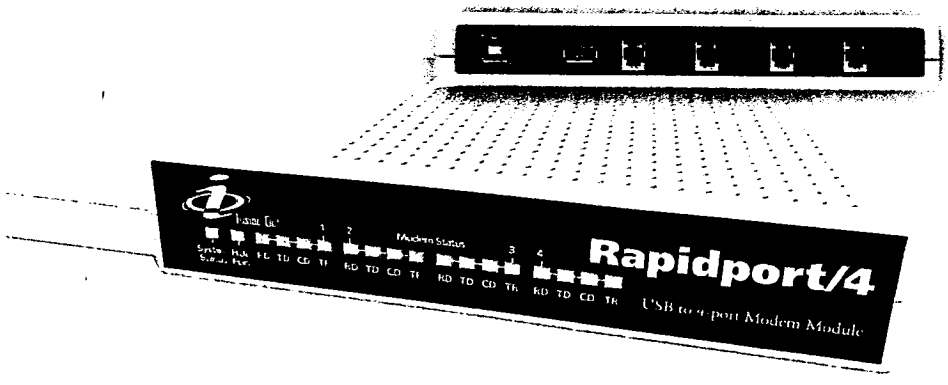
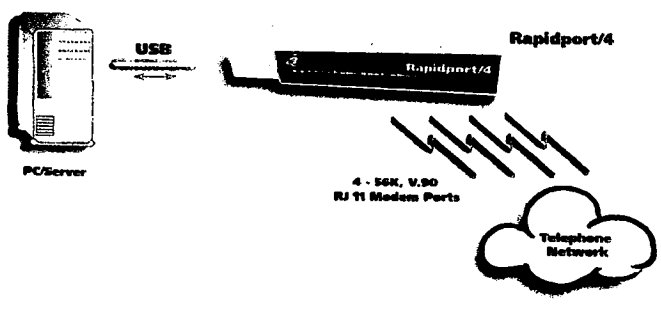


EXHIBIT
Young
Ex. 2
10/16/06

Plug-and-Play Multi-Modem Expansion

The Rapidport/4 USB to four-port modem module with built-in USB hub is the next step in USB and remote access for Microsoft NT® 4.0. This external, user-installable solution plugs into an existing USB port of a PC, thin client or server, providing four 56K V.90 modems. The Rapidport/4 gives network users access to ISP, fax, and other group dial-up applications supported by NT RAS.

Remote Access



Remote Access for Network Users

- Add four 56K V.90 modems to a PC, server or thin client in minutes
- External, user-installable solution saves time and money – no need to open the chassis, power down or reconfigure the system
- Pool existing modem lines and share dial-up resources
- Stack and daisy chain up to five Rapidport/4 units per system for easy modem expansion
- Reliable performance for ***mission-critical*** applications like point-of-sale, kiosk connectivity, and remote access

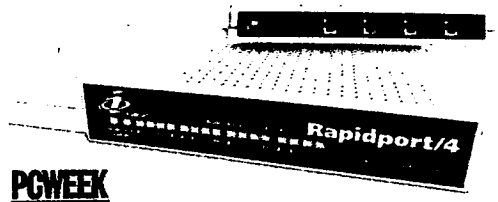
Get **of the box** today.

DII 00462

Rapidport Products and Part Numbers

RAPIDPORT DOMESTIC MODEL		
NAME	DESCRIPTION	PART #
Rapidport/4	Four 56K V.90 Modems	301-1012-04

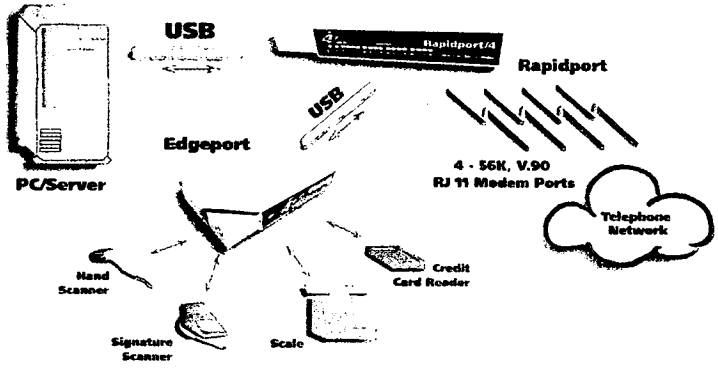
RAPIDPORT INTERNATIONAL MODEL		
NAME	DESCRIPTION	PART #
Rapidport/4	Four 56K V.90 Modems	301-2012-04

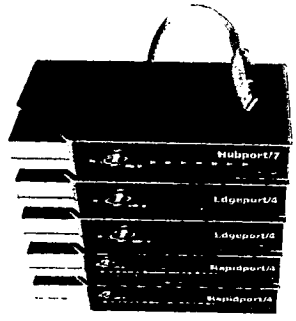


PCWEEK BEST OF COMDEX FINALIST

All models ship with 1 meter USB cable and power supply.

Point-of-Sale





To view our entire line of USB solutions visit our website at www.ionetworks.com

Rapidport Technical Features and Specifications

FEATURES

Four 56K V.90 flex modems with RJ-11 connectors
Fully compatible with USB specification v1.0 and 1.1; backwards compatibility with USB 2.0
Easy plug-and-play USB installation and software setup
No IRQ, I/O address, DMA, or memory address requirements
Front-panel LEDs display modem and hub status
On board USB hub for easy attachment of additional units (type A downstream connector)
Uses E2PROM for field-upgradable code
64-byte FIFOs per port per direction

SYSTEM REQUIREMENTS

Windows 95 (OSR2), 98, SE, 2000, Me, NT 4.0, NT Embedded, XP, XP Embedded
8MB RAM, 16MB recommended
1 available USB type A (downstream) port
Dial-up analog line

POWER REQUIREMENTS

Ships with plug mounted 5VDC power supply with input voltage requirement of 120VAC, 60 Hz (domestic) or 230VAC, 50 Hz (international)

ENVIRONMENTAL REQUIREMENTS

Ambient temperature: 32°-104°F (0°-40°C)
Relative humidity: 0-95% non-condensing

CERTIFICATION AND SAFETY

FCC Part 15 Class B
CE Certified
EN55022, Class B
EN50082-1
EN60950
UL 1950
CSA No. 950

MODEM SPECIFICATIONS

56K download speeds from digital 56K V.90 flex servers
33.6K download and upload speeds from non-56K V.90 flex servers and client modems
Fax: 14.4K bps

MODEM STANDARDS

Data 56K V.90 flex and enhanced V.34
Error Correction: V.42
Data Compression: MNP® Class 5; V.42bis
Fax: V.17, Group 3; Class 1 and 2

DIMENSIONS

Length: 4.35 in (11.05 cm)
Height: 1.03 in (2.61 cm)
Width: 7.2 in (18.29 cm)
Weight: 11 oz (311.84 g)

DII 00463

Inside Out Networks

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Inside Out NETWORKS

Digi Connectware™

Microsoft® Windows® Embedded Partner

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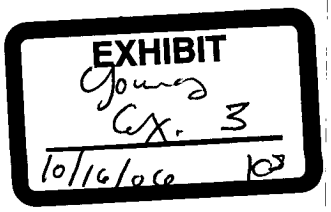
info@ionetworks.com

PRODUCT DATA SHEET

AccelePort Xe

- > Economical intelligent serial adapter for connecting multiuser terminals, printers, modems, and POS devices
- > Two, four or eight EIA-232 serial ports
- > Four or eight EIA-422 serial ports
- > On-board processing relieves host CPU of communication bottlenecks
- > Available for ISA bus platforms



Designed to deliver fast, reliable connections for multiuser workgroups, the AccelePort® Xe multiport serial adapter is a low-priced solution for supporting terminals, printers, modems and other asynchronous peripherals.

Recommended for point-of-sale, data acquisition, factory automation, and industrial control applications, the AccelePort Xe is among Digi's most popular selling add-in solutions. Equipped with powerful on-board I/O processing to reduce host CPU utilization, and supplied with full modem control and hardware handshaking, the AccelePort Xe easily accommodates the varying connectivity needs of small to medium sized workgroups.

EIA-232 models are available in two-, four- or eight-port models, while the EIA-422 models are offered with four or eight ports. The EIA-422 solutions enable users to transmit signals over greater distances and at higher speeds than standard EIA-232 communications and are generally immune to electrical interference and surges. These benefits make the EIA-422 solution a smart choice for industrial and manufacturing applications as well as widespread point-of-sale operations.

The AccelePort Xe supports a broad spectrum of operating environments—from SCO®, Novell®, Linux®, and Microsoft®. Other device drivers are available from your Digi representative or can be easily downloaded from Digi's Web site or FTP server.

For low-cost, accurate and dependable multiuser communications, the AccelePort Xe is among the smartest connection that you can make.

Digi®

Connectability

FEATURES

AccelePort Xe Serial Adapter

> Two, four and eight ports with EIA-232 interfaces

> Four and eight ports with EIA-422 interfaces

> ISA bus support

> Memory—64 K RAM (dual ported) with 8 K memory window

> Supports 115.2 Kbps on two ports; full 57.6 Kbps on four or eight ports

CONNECTORS

AccelePort 2e-232

> Two DB-9 male connectors

AccelePort 4e and 8e-232

> DB-25 male cable assembly, modem ready

> Options: RJ-45 connector box and DB-25 I/O box

AccelePort 4e and 8e-422

> DB-9 or DB-25 male cable assembly options

POWER REQUIREMENTS

ISA—AccelePort 2e

> +5 V +/-5% 1.0 Amps typical
> +12 V +/-5% .80 Amps typical
> -12 V +/-5% .50 Amps typical

ISA—AccelePort 4e and 8e

> +5 V +/-5% 1.9 Amps typical
> +12 V +/-5% .11 Amps typical
> -12 V +/-5% .11 Amps typical

REGULATORY APPROVALS

> FCC Part 15, Class B
> ICES-003 Class B
> EN 55022
> EN 50082-2
> UL 1950
> CSA 22.2 No. 950
> EN60950
> AS3548

DIMENSIONS

ISA AccelePort 2e

> Length: 17.02 cm (6.7 in)
> Width: 8.9 cm (3.5 in)
> Height: 1.27 cm (0.5 in)
> Weight: 0.09 kg (3.25 oz)

ISA AccelePort 4e and 8e

> Length: 22.1 cm (8.7 in)
> Width: 8.9 cm (3.5 in)
> Height: 1.27 cm (0.5 in)
> Weight: 0.13 kg (4.5 oz)

MODEL/PART NUMBERS

Model		Part Numbers
EIA-232 Solutions		
AccelePort 2e-ISA DB-9		# 77000248
AccelePort 4e-ISA	(Connector not included, see below)	# 77000035
AccelePort 4e-ISA DB-25 Cable		# 70000737
AccelePort 8e-ISA	(Connector not included, see below)	# 77000037
AccelePort 8e-ISA DB-25 Cable		# 70000738
EIA-422 Solutions		
AccelePort 4e-ISA EIA-422 DB-9 Cable		# 70001058
AccelePort 4e-ISA EIA-422 DB-25 Cable		# 70000939
AccelePort 8e-ISA EIA-422 DB-9 Cable		# 70001059
AccelePort 8e-ISA EIA-422 DB-25 Cable		# 70000938
Required Accessories		
4 Port DB-25M Cable Assembly		# 76000008
8 Port DB-25M Cable Assembly		# 76000021
4 Port DB-25M Box		# 76000030
8 Port DB-25M Box		# 76000031
4 Port RJ-45 Connector		# 76000038
8 Port RJ-45 Connector		# 76000033

One adapter cable needed per port

SYSTEM REQUIREMENTS

> One 16 bit slot

> 8 K or 32 K unused memory address space for static RAM

> One unused I/O port address

ENVIRONMENTAL REQUIREMENTS

> Ambient temperature: 10°C to 55°C (50°F to 131°F)

> Relative humidity: 5% to 90% non condensing

> Altitude: 0 to 3,600 meters (0 to 12,000 feet)

> Air movement: 30 CFM forced

SOFTWARE COMPATIBILITY

> Linux
> Microsoft Windows NT®, Windows 95
> Novell NetWare®
> OS/2
> QNX
> SCO OpenServer™
> SCO UnixWare™
> UNIX SVR4

* Drivers ship with product on CD-ROM.

DIGI SERVICE AND SUPPORT

You can purchase with confidence knowing that Digi is here to support you with expert technical support, a strong five-year warranty and a 30-day money-back guarantee.

For driver updates, visit Digi's web site at www.digi.com

Digi International
11001 Bren Road E.
Minnetonka, MN 55343
U.S.A.

http://www.digi.com

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support fax:
612-912-4958
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(+852) 2833 1008
Australia:
(+61) 2 9680 8944
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cust_serv@digi.com

Digi®
Connectability

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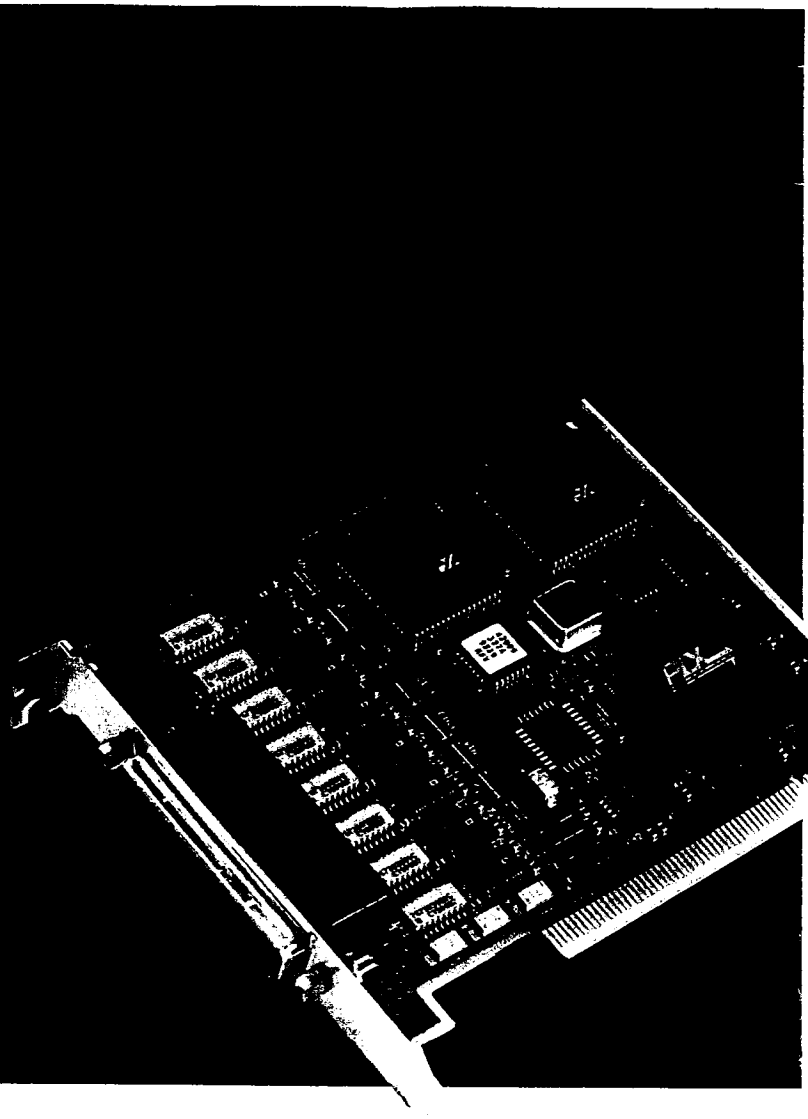
91000628
D1/399

Features/Specifications

DIL 00465

PRODUCT
DATA SHEET

ClassicBoard



- > Cost-effective solution for Point-of-Sale (POS) systems, Electronic Data Interchange (EDI), industrial control and other applications where low latency is required
- > Four or eight serial ports
- > ISA and PCI bus support
- > EIA-232 and EIA-422 models
- > 16C654 UART with 64 byte buffer

EXHIBIT
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ClassicBoard® Overview

Offering unparalleled reliability and ease of installation, the Digi ClassicBoard® serial card family provides the ultimate in cost-effective communication technology. The ClassicBoard Family is best suited to applications where the CPU is able to devote some of its resources to handling computations or to real time applications that require short latency time intervals. This solution is ideal for connecting cash registers, print receipt devices, scanners, and other peripheral devices in retail POS systems. It can also be used in applications using sensors, switches, measurement devices, factory automation, EDI, industrial control processing, and data collection.

The ClassicBoard Family provides an array of ISA- and PCI- based options to help you easily meet a variety of end-user needs. The four- and eight-port EIA-232 models are offered with a choice of DB-25, DB-9 or RJ-45 connectors, as well as four- and eight-port EIA-422 models.

Each model is available with 16C654 UARTs with a 64 byte FIFO, delivering optimum throughput up to 460.8 Kbps. And every signal is safeguarded by built-in surge protection which ensures that electrical interference, power surges or brown-outs don't interfere with the system operation.

All models are remarkably easy to install. No dip-switches or jumpers to set—and no hassles! All models are Microsoft® Windows 95/98/Me, Windows Xp and Windows 2000 Plug-and-Play compatible. In non plug-and-play environments, the ClassicBoard is software configurable using Digi's exclusive software configuration utility.

Best of all, the Digi ClassicBoard Family features the same quality, reliability and support that have made Digi the leader in Connectware, with over 15 million ports shipped. Make ClassicBoard a standard in your application. We're sure you'll agree that a classic is always a great investment.

Digi®

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FEATURES

All Models

- Supports speeds up to 460.8 Kbps
- Full-duplex operation
- Multi-strike surge suppression on every signal
- Plug-and-Play support for Windows 95/98/Me, Windows Xp and Windows 2000
- 16C654 UARTs providing automatic flow control and 64-byte FIFO
- Interrupt status support provides efficient use of interrupt handling
- Standard connections for four and eight ports: DB-25, DB-9 and RJ-45
- Developer's tool kit available

PCI

- Four or eight ports for PCI EIA-232
- Supports auto configuration of all PCI interrupts

ISA

- Four or eight ports for EIA-232
- Four or eight ports for EIA-422
- Software configuration in non-plug-and-play environments with Digi's exclusive software utility
- Supports three modes for backward compatibility with legacy Digi, StarGate and Arnet products
- Fully programmable IRQs using levels 3-7, 9-12, 14, 15

SYSTEM REQUIREMENTS

PCI

- One 32-bit slot
- IRQ is assigned

ISA

- One 16-bit slot
- IRQ is assigned

ENVIRONMENTAL

- Ambient temperature: 55°F TO 131°F (10°C to 55°C)
- Relative humidity: 5% to 90% (non-condensing)
- Altitude: 0 to 12,000 feet (0 to 3,660 meters)
- Air movement: 30 CFM forced

REGULATORY APPROVALS

- FCC Part 15, Class B
- VCCI Class B
- AS3548
- EN55022 Class B
- EN50082-2
- UL 1950
- CSA 22.2 No.950
- EN60950
- AS3260

MODEL/PART NUMBERS

	Part Number
PCI	
232 Solutions	
ClassicBoard 4-PCI EIA-232 (Connector not included, see below)	77000576
ClassicBoard 8-PCI EIA-232 (Connector not included, see below)	77000578
ISA	
232 Solutions	
ClassicBoard 4-ISA EIA-232 (Connector not included, see below)	77000435
ClassicBoard 8-ISA EIA-232 (Connector not included, see below)	77000434
422 Solutions	
ClassicBoard 4-ISA EIA-422 with DB-9F fan-out Cable	70001267
ClassicBoard 4-ISA EIA-422 with DB-25M fan-out Cable	70001269
ClassicBoard 8-ISA EIA-422 with DB-9F fan-out Cable	70001266
ClassicBoard 8-ISA EIA-422 with DB-25M fan-out Cable	70001268
Connector Options	
4-Port DB-9M DTE fan-out cable	76000003
8-Port DB-9M DTE fan-out cable	76002042
4-Port DB-25M DTE fan-out cable	76000008
8-Port DB-25M DTE fan-out cable	76000021
4-Port DB-25M DTE connector box	76000030
8-Port DB-25M DTE connector box	76000031
4-Port RJ-45 connector box	76000038
8-Port RJ-45 connector box	76000033

Other connector options also available

POWER REQUIREMENTS

PCI

Four-Port Cards
- 400 mA typical +5 V
- 80 mA typical +12 V
- 80 mA typical -12 V

Eight-Port Cards
- 350 mA typical +5 V
- 40 mA typical +12 V
- 40 mA typical -12 V

ISA

Four-Port Cards
- 180 mA typical +5 V
- 120 mA typical +12 V
- 80 mA typical -12 V

Eight-Port Cards
- 330 mA typical +5 V
- 180 mA typical +12 V
- 124 mA typical -12 V

OPERATING SYSTEMS

PCI Models	ISA Models
Microsoft Windows XP (available soon)	Microsoft Windows 2000
Microsoft Windows 2000	Microsoft Windows NT**
Microsoft Windows NT	Microsoft Windows 95/98/Me**
Microsoft Windows 95/98/Me	DOS
IRIX	Linux*
Linux	OS/2
OS/2	QNX*
SCO OpenServer*	SCO OpenServer*

Most drivers ship with product on CD-Rom. (In the case of ISA models, the Windows NT and Windows 95/98/Me drivers ship on floppy disk). All drivers and driver updates are also available on our web-site at support.digi.com/drivers.

* Driver software on operating system
** Drivers ship with product on floppy disk

DIMENSIONS

Host Adapters	Length	Width	Height	Weight
PCI				
Four/eight-port	5.25 in (13.34 cm)	4.2 in (10.69 cm)	.5 in (1.27 cm)	9 oz. (.26 kg)
ISA				
Four/eight-port	6.5 in (16.51 cm)	4.2 in (10.69 cm)	.875 in (2.24 cm)	5 oz. (.14 kg)

DIGI SERVICE AND SUPPORT

You can purchase with confidence knowing that Digi is here to support you with expert technical support, a strong five-year warranty and a 30-day money-back guarantee.

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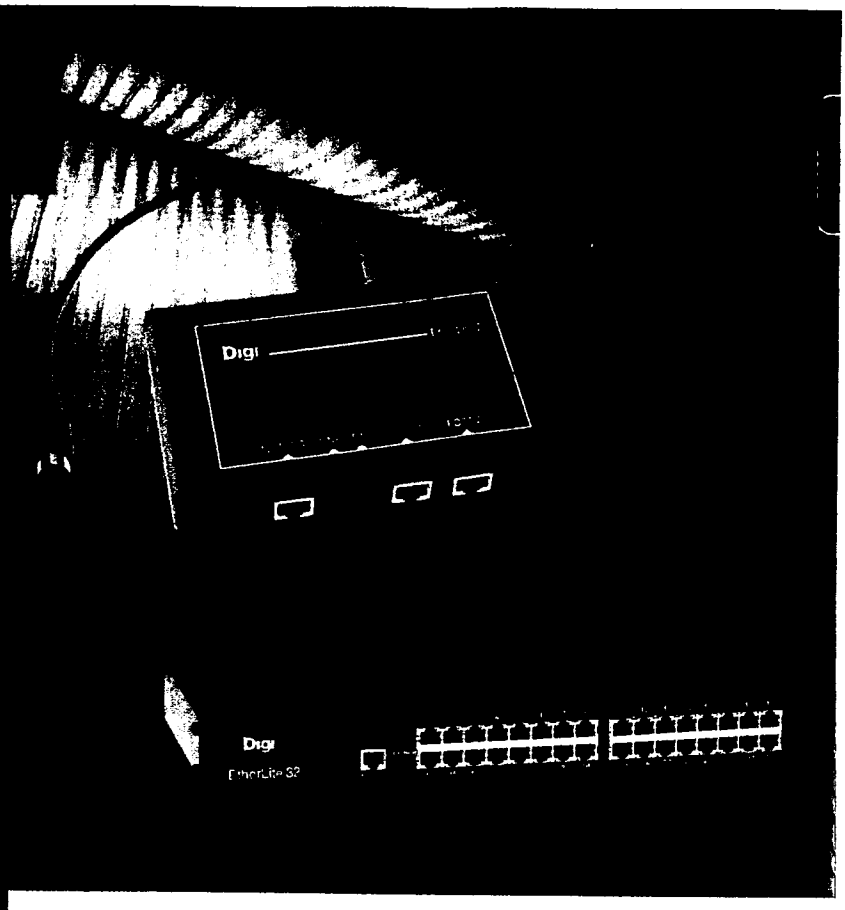
EtherLite



- > Ideal for console management, POS/retail, process control, data collection and many other applications requiring serial port connectivity
- > Two, eight, 16 or 32 asynchronous serial ports
- > Multiplexes all serial ports into a single TCP/IP session, minimizing Ethernet traffic
- > Flash memory for instant field upgrades
- > Installed drivers for UNIX, Microsoft Windows NT and Windows 2000
- > Full RAS support on Windows NT and Windows 2000

The Digi EtherLite® network serial concentrator connects asynchronous serial ports to your network. The EtherLite Family replaces the installation of serial adapters in servers for applications in POS/retail, process control, data collection and console management of clusters, routers, hubs, switches, PBXs and other networking devices with console ports.

The EtherLite models feature real serial ports and do not carry the burden of Telent, Rlogin, Reverse Telnet or other complex networking overhead. This makes the EtherLite simple to install and configure. Just attach the units to a twisted-pair Ethernet segment, set the IP address, and load the device driver under UNIX, Windows NT or Windows 2000. The simple instruction guide included with the EtherLite and automated procedures save you valuable time.

A single TCP/IP session services the traffic from all ports, not the conventional one-session-per-port method. This means less overhead at the host and less traffic on the Ethernet. In addition, the EtherLite ports appear as local TTYs under UNIX® and as native COM ports under Windows NT® or Windows 2000. These locally administered, "hardware-style" ports allow full control of serial ports.

The Digi EtherLite supports port speeds up to 115 Kbps, ideal for handling all of today's serial devices. Hardware and software flow control is provided to manage data flow at even higher baud rates. All this performance for an extremely low price per port.

With over 15 million ports shipped, Digi is #1 in serial connectivity. The EtherLite Family is one part of that legacy.

Connects Asynchronous Serial Ports to Your Ethernet Network

EXHIBIT
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FEATURES

- > Two, eight, 16 or 32 asynchronous serial ports
- > Two- and 16-port EIA-422 serial port versions
- > Two-port EIA-485 serial port version
- > High-speed data rates up to 115 Kbps on all ports simultaneously
- > Multiplexes all serial ports into a single TCP/IP session, minimizing Ethernet traffic
- > Auto-detection of either 10 Mbps or 100 Mbps Ethernet (EtherLite 80, 160 and 162 models)
- > Flash memory for instant field upgrades
- > Full RAS support on Windows NT or Windows 2000
- > Supports DHCP for easy IP address configuration

OPERATING SYSTEMS

- > AIX
- > HP-UX
- > Linux
- > Microsoft Windows NT
- > Microsoft Windows 2000*
- > SCO OpenServer
- > Sun Solaris (Intel and Sparc)

* Only available on EtherLite 2, 80, 160 and 162

DIMENSIONS

EtherLite 2 (EIA-232, EIA-422 and EIA-485)

- > Length: 6.3 in (16.0 cm)
- > Depth: 3.8 in (9.5 cm)
- > Height: 1.2 in (2.9 cm)
- > Weight: .5 lbs. (0.2 kg)

EtherLite 80, EtherLite 160 and EtherLite 162

- > Length: 11.5 in (29.3 cm)
- > Depth: 5.4 in (13.8 cm)
- > Height: 1.2 in (2.9 cm)
- > Weight: 3.1 lbs. (1.4 kg)

EtherLite 32

- > Length: 15.1 in (38.4 cm)
- > Depth: 7.6 in (19.2 cm)
- > Height: 1.8 in (4.5 cm)
- > Weight: 5.8 lbs. (2.6 kg)

MODEL/PART NUMBERS

Model	North America	International
EtherLite 2	70001430	70001531
EtherLite 2 EIA-422	70001432	70001532
EtherLite 2 EIA-485	70001683	70001706
EtherLite 80 (call for availability)	70001767	70001768
EtherLite 160	70001427	70001528
EtherLite 162 EIA-422	70001428	70001529
EtherLite 32	70001429	70001533

ENVIRONMENTAL

- > Ambient temperature: 50° F to 104° F (10° C to 40° C)
- > Relative Humidity: 5% to 90% (non-condensing)

PROCESSOR & MEMORY

CPU

- > 40 MHz 80C186 embedded microcontroller

SRAM

- > 512K at zero wait states

EPROM

- > 128K flash at zero wait states

POWER SUPPLY

Universal external power supply for all except EtherLite 32

- > 100-240VAC, 50-60Hz

EtherLite 2 and EtherLite 160

- > 48v power supply available (call for details)

EtherLite 32

- > Internal 110/240v

CONNECTORS

- > EIA-232, RJ-45 female connectors with built-in transient voltage suppression

REGULATORY APPROVALS

- > FCC Class A
- > CE Mark
- > DOC Class A

DIGI SERVICE AND SUPPORT

You can purchase with confidence knowing that Digi is here to support you with expert technical support, a strong five-year warranty and a 30-day money-back guarantee.

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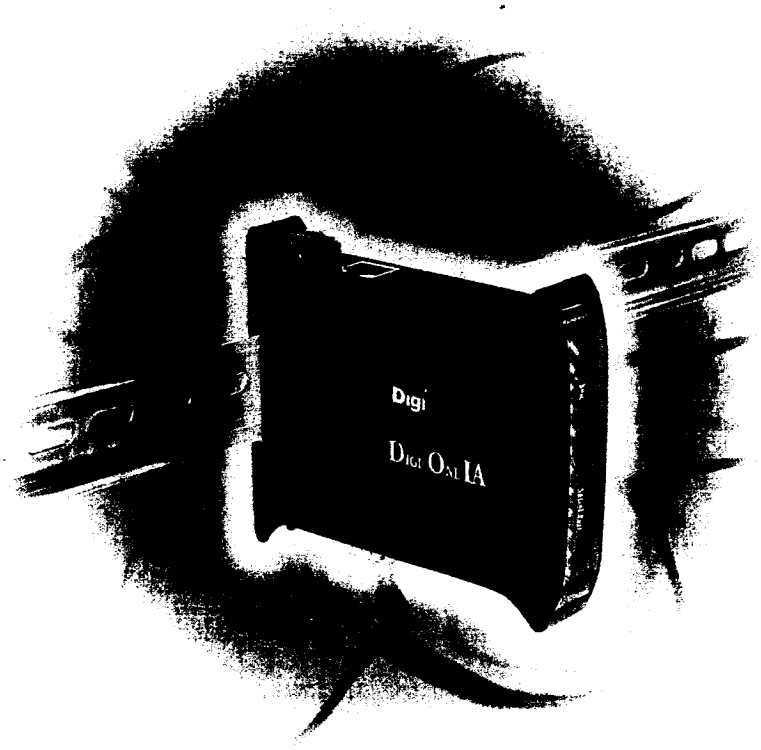
Product Data Sheet



Digi One™ IA

Device Server

The Digi One IA device server is designed for standard serial-to-Ethernet connectivity. It is ideal for industrial applications requiring simple and easy-to-use data communications.

EXHIBIT
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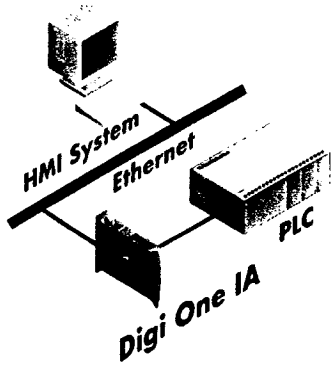

Features/Benefits

- **Ethernet-enable industrial serial devices**
- **> Industrial DIN Rail mounting**
- **> TCP/UDP Socket Services for broad device connectivity and application use**
- **> DB-9M and screw terminals for serial port connection**
- **> Galvanically isolated (from earth ground)**
- **> Class 1, Div2 rated**
- **> Industry leading low latency**
- **> EIA-232/422/485 switch selectable**
- **> Easy configuration though web interface (HTTP)**

Overview

The Digi One IA device server easily allows any industrial device with a serial port to be connected to the Ethernet (such as Programmable Logic Controllers, process and quality equipment, motors, drives, bar-code readers, operator displays and other types of manufacturing equipment). The compact design of the Digi One IA delivers cost-effective performance and capability in a rugged DIN Rail mountable enclosure specifically designed for the Industrial Automation market.

Part of Digi's broad device server offering, the Digi One IA delivers standard serial-to-Ethernet connectivity and is ideal for serial tunneling applications or where TCP Socket, UDP Socket, or UDP Multicast functionality is needed. The Digi One IA works with software applications using TCP/UDP Sockets allowing a serial device to interoperate with the software applications without the need to install a driver. Serial tunneling allows two previously non-networked and isolated devices to easily communicate information and operate with existing installed software applications on an Ethernet network, instead of a long serial cable.

The Digi One IA is easy to install locally or remotely through a variety of IP addressing methods (DHCP, RARP, ARP-Ping) static IP along with an application (included on the installation CD that accompanies the product) that will automatically detect all Digi One IA devices on your network. Also included is a quick-start guide that supports making the network configuration of the product easy and hassle-free.

Digi International, the leader in Connectware, makes device networking easy by manufacturing products and technologies that are cost-effective and easy to use. With over 20 million ports shipped worldwide, Digi has been offering the highest levels of performance, flexibility, and quality since 1985.

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Features/Specifications

FEATURES

- TCP/UDP Socket Services
- UDP Multicast
- Telnet, Reverse Telnet and extended Telnet RFC 2217
- HTTP browser configurable
- DHCP/RARP, APR-Ping for IP Address assignment
- Flash upgradeable firmware
- 10/100Base-T Ethernet support
- DB-9M and screw terminal block serial port
- Baud rates up to 230 Kbps
- Full modem and hardware flow control
- 35mm DIN Rail mounting
- Screw terminal block power jack
- LED status for serial signals, power, Ethernet and diagnostics
- 9 - 30Vdc input

POWER REQUIREMENTS

- 9-30Vdc @ .5 Amps max

No power supply ships with this product.

DIMENSIONS

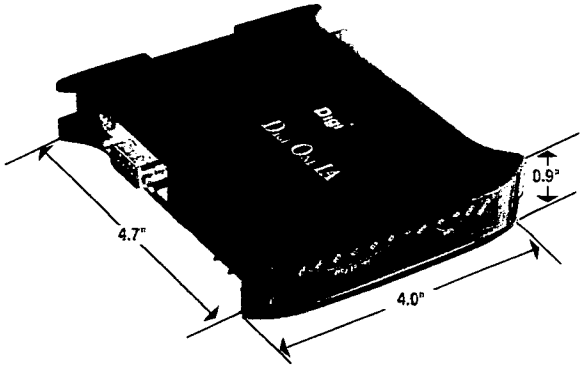
- Length: 4.7 in. (12 cm)
- Depth: 4 in (10.1 cm)
- Width: 0.9 in. (2.3 cm)
- Weight: 2.25 oz (64 g)

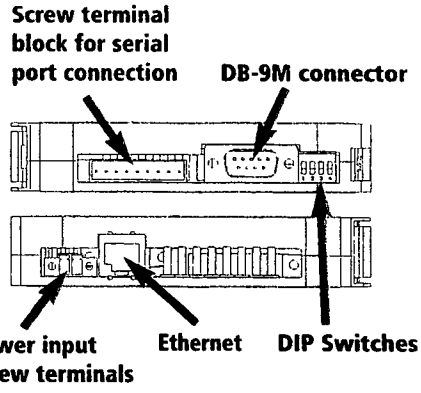
REGULATORY APPROVALS

- FCC Part 15, A
- CE
- UL Class 1, Div2
- ICES-003, A
- EN55022, A
- 6100-6-2 + EN55024
- UL 1950
- CSA 22.2 No 950
- EN 60950
- AS3548

ENVIRONMENTAL

- Ambient temperature: 0°C to 60°C (32°F to 140°F)
- Relative humidity: 5% to 90% (non-condensing)





MODEL.....PART NUMBERS

Model	North America	International
Digi One IA	70001862	70001862

DIGI SERVICE AND SUPPORT

You can purchase with confidence knowing that Digi is here to support you with expert technical support and a strong five-year warranty. http://support.digi.com

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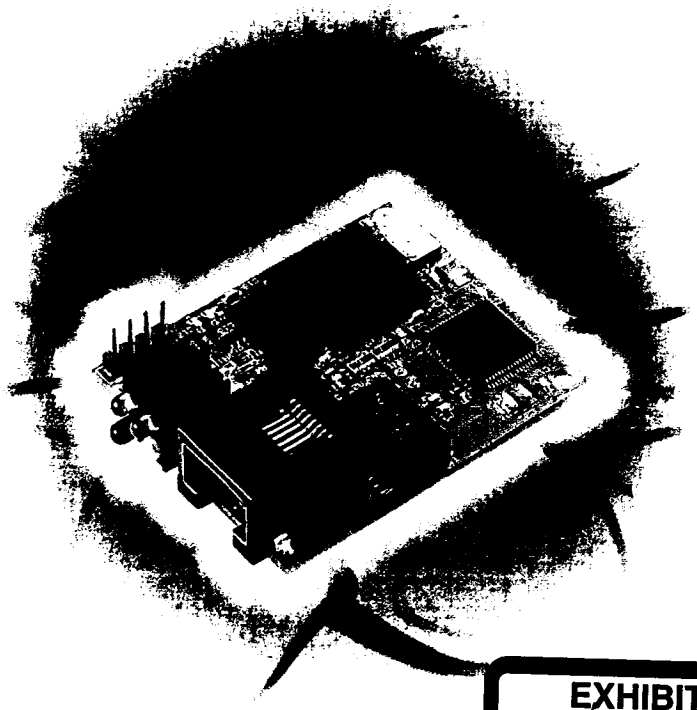
Connectware™

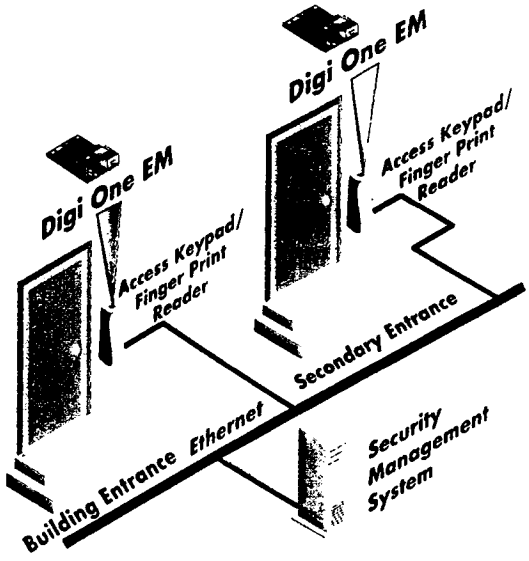
Product Data Sheet



Digi One™ EM

Device Server

High performance, integrated Ethernet connectivity. The Digi One EM offers equipment manufacturers a quick, simple and cost-effective way to add network connectivity to their products.



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Features/Benefits

- **Field-upgradeable single component solution for embedded applications**
- **> 4MB Flash and 8MB RAM on-board to support existing and future application requirements**
- **> TTL Serial interface**
- **> Robust on-board TCP/IP stack**
- **> Flexible input power range**
- **> Auto-sensing 10/100Base-T network interface**
- **> Universal IP address assignment**
- **> Easy configuration through web interface (HTTP)**
- **> Includes Digi's patented RealPort COM/TTY port redirection software**
- **> Custom population options available**

Overview

The Digi One EM is part of the Digi One Family of single port device servers that provide simple, reliable and cost-effective network connections for serial devices.

The Digi One EM allows both equipment manufacturers and systems integrators to network-enable products at a fraction of the time and cost required to develop a custom solution. It is a highly flexible and compact single component solution with a robust on-board TCP/IP stack and 10/100Base-T Ethernet support. Digi's unique and patented RealPort® COM/TTY port redirection software allows for seamless integration into existing application environments under Microsoft Windows, UNIX and Linux by making network-enabled serial devices available through the standard COM/TTY interfaces.

In virtually any application where embedded serial connectivity over Ethernet is needed, such as medical systems, building control and industrial automation, the Digi One EM is the ideal choice for delivering high-performance functionality.

A complete integration kit containing a development board, documentation, sample code, cables and accessories is available for evaluation and development use.

Digi International, the leader in Connectware, makes device networking easy by manufacturing products and technologies that are cost-effective and easy to use. With over 20 million ports shipped worldwide, Digi has been offering the highest levels of performance, flexibility, and quality since 1985.

Please contact Digi at 1-877-OEM-DIGI for additional information or to discuss your application specific requirements.

Digi®

Connectware™

Features/Specifications

FEATURES

- TTL Serial Interface
  - Throughput up to 230,400 bps
  - Full signal support for TX, RX, RTS, CTS, DTR, DSR and DCD
  - Full hardware and software flow control
- 4MB Flash and 8MB RAM on-board
- Auto-sensing 10/100Base-T network interface with on-board RJ-45
- Flexible input power range
- Status LEDs for Link, Power, and Diagnostics
- Fully field-upgradeable
- Robust on-board TCP/IP stack, with support for
  - TCP/UDP
  - UDP Multicast
  - Telnet / Reverse Telnet
  - RFC 2217
- Patented RealPort COM port redirection for Microsoft Windows, UNIX, and Linux environments
- Universal IP address assignment using DHCP, RARP, and ARP-Ping
- Easy configuration through web browser interface (HTTP)
- Custom population options available

PINOUTS

Connector P4

Pin Number	Signal Name	Description
1	+5V DC	Power
2	GND	Ground
3	RXD	Receive Data (Input)
4	TXD	Transmit Data (Output)
5	RTS	Request to Send (Output)
6	DTR	Data Terminal Ready (Output)
7	CTS	Clear to Send (Input)
8	DCD	Data Carrier Detect (Input)
9	DSR	Data Set Ready
10	RST~	RESET
11	RES	Reserved
12	RES	Reserved

POWER REQUIREMENTS

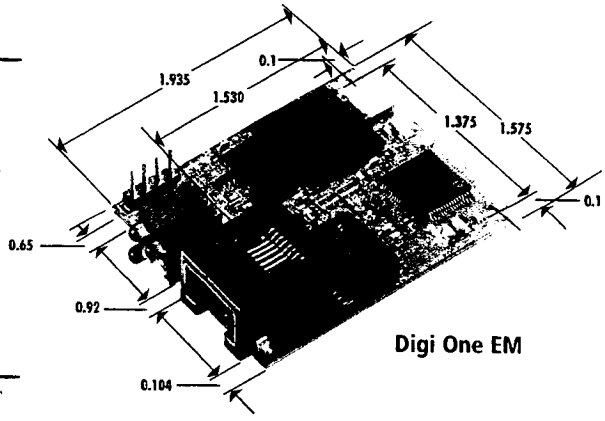
- +5 VDC @ 370mA to +9 VDC @ 230mA Typical

DIMENSIONS

- Length: 1.93 in. (4.9 cm)
- Depth: .974 in (2.47 cm)
- Width: 1.57 in. (4 cm)

ENVIRONMENTAL

- Ambient temperature: 10°C to 55°C (50°F to 131°F)
- Relative humidity: 5% to 90% (non-condensing)
- Altitude: 12,000 Feet (3658 Meters)



Digi One EM

REGULATORY APPROVALS

- FCC Part 15, Class A
- EN55022 1998 Class A
- UL 60950
- EN 60950
- CSA 22.2 No. 60950

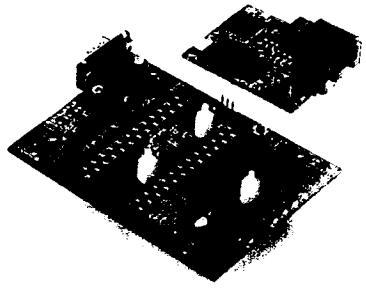
LEDS

- Link, Diagnostics, Activity

MODEL.....PART NUMBERS

Model	North America	International
Digi One EM	700001861	700001861
Digi One EM Integration Kit	700001874	700001896

Please contact us at **1-877-OEM-DIGI** for additional information or to discuss your application specific requirements.



Integration kit contains the Digi One EM module, development board, power supply, cables, sample code and documentation.

DIGI SERVICE AND SUPPORT

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Digi® Connectware™

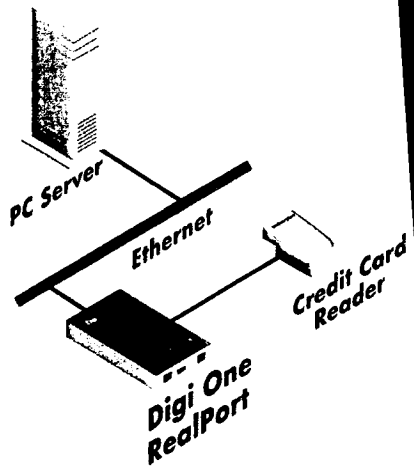
DII 00473

Product Data Sheet

Digi One™ RealPort

Device Server

The Digi One RealPort device server is designed for standard serial-to-Ethernet connectivity. It is ideal for applications requiring seamless integration to existing application environments and network device management.



EXHIBIT
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Features/Benefits

- **Patented Digi RealPort® technology for COM or TTY port control and management**
- **TCP/UDP Socket Services for broad device connectivity and application use**
- **Reverse Telnet and auto-connect using Rlogin, Telnet or raw**
- **Easy configuration through web interface (HTTP)**
- **SNMP for easy network management**
- **PPP for network enabling serial device**
- **Industry leading low latency**

Overview

The Digi One RealPort delivers simple, reliable and cost-effective network connectivity for virtually any serial device. The Digi One RealPort easily addresses the growing need to connect individual devices to the network over industry standard Ethernet in many applications – including retail/point of sale, building control, and medical point-of-care.

Part of Digi's broad device server offering, the Digi One RealPort delivers high-performance serial-to-Ethernet connectivity and is ideal for applications requiring COM ports, serial tunneling, or where TCP Socket, UDP Socket, or UDP Multicast functionality is needed. Digi's patented RealPort technology delivers the industry's most robust, reliable, and versatile COM port control and management. RealPort technology makes it possible to establish a connection between the host and networked serial device by creating a local COM or TTY port on the host computer, allowing software applications to work with networked device servers instead of requiring host adapter.

The Digi One RealPort is easy to install locally or remotely through a variety of IP addressing methods (DHCP, RARP, ARP-Ping) along with an application (included on the installation CD that accompanies the product) that will automatically detect all Digi One RealPort devices on your network.

Digi International, the leader in Connectware, makes device networking easy by manufacturing products and technologies that are cost-effective and easy to use. With over 20 million ports shipped worldwide, Digi has been offering the highest levels of performance, flexibility, and quality since 1985.

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Making DEVICE NETWORKING easy

DII 00474

Features/Specifications

FEATURES

- Low latency
- TCP/UDP Socket Services
- UDP Multicast
- Telnet and Reverse Telnet
- Patented RealPort technology for COM and TTY ports
- PPP
- HTTP
- SNMP (read/write)
- Digi Port Authority – Remote management diagnostics and Auto-discovery tool
- DHCP/RARP/ARP-Ping, Static IP for IP Address assignment
- 10/100Base-T Ethernet support
- RJ-45 serial port; EIA-232 interface
- Baud rates up to 230 Kbps
- Full modem and hardware flow control
- LED status for link and power
- RJ-45/DB-9F crossover cable included for configuration

REGULATORY APPROVALS

- FCC Part 15, B
- CE
- ICES-003, B
- EN55022, B
- EN50082-2
- UL 1950
- CSA 22.2 No 950
- EN 60950
- AS3548

OPERATING SYSTEMS

RealPort drivers for COM/TTY support

- AIX
- HP-UX
- Linux
- Microsoft® Windows XP®
- Microsoft Windows 2000®
- Microsoft Windows NT®
- SCO® OpenServer™
- SCO UnixWare™
- Solaris™ (Intel)
- Solaris (SPARC)

Designed for Microsoft® Windows® XP

DIMENSIONS

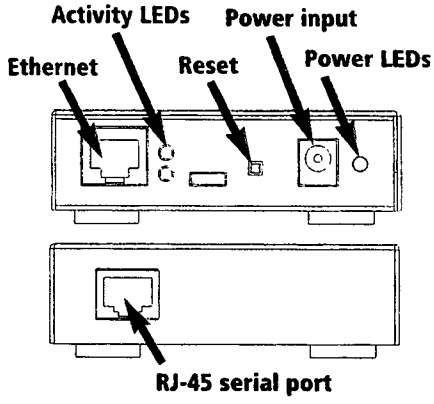
- Length: 5.42 in (13.31 cm)
- Width: 3.3 in (8.46 cm)
- Depth: .952 in. (2.42 cm)
- Weight: 2.25oz (64 g)

POWER REQUIREMENTS

- Ships with 110/240 VAC at 3.3Vdc @ .75 Amps max

ENVIRONMENTAL

- Ambient temperature: 0°C to 60°C (32°F to 140°F)
- Relative humidity: 5% to 90% (non-condensing)



MODEL.....PART NUMBERS

Model	North America	International
Digi One RealPort	700001749	700001752

DIGI SERVICE AND SUPPORT

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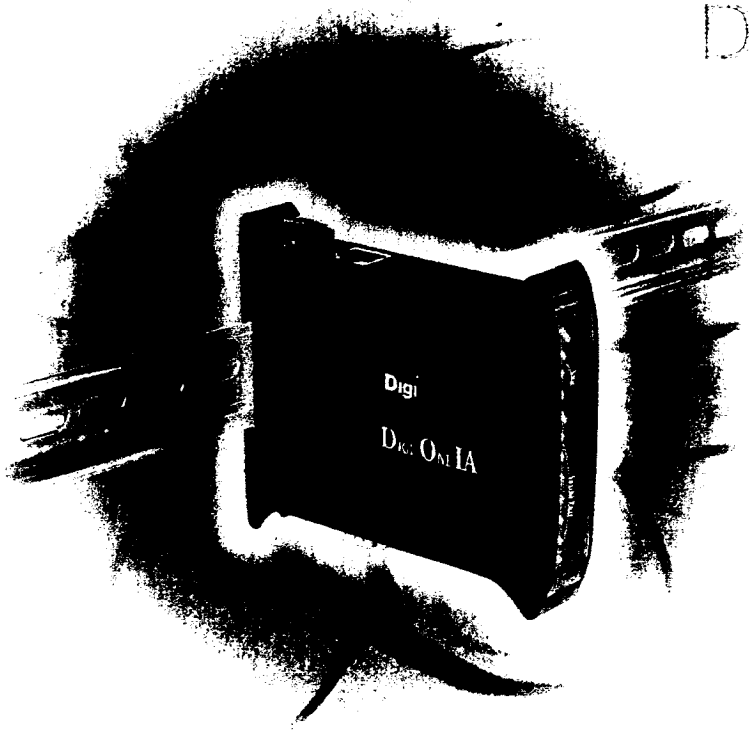
Digi® Connectware™

DII 00475

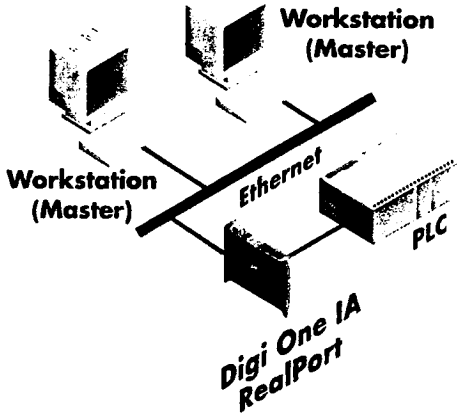
Product Data Sheet



Digi One IA RealPort™

Device Server

The Digi One IA RealPort device server is designed for universal, high-performance serial-to-Ethernet connectivity. It is ideal for industrial applications requiring specific industry protocol support and where device management and monitoring is critical.



Features/Benefits

- Ethernet-enable industrial serial devices
- > Industrial DIN Rail mounting
- > Patented RealPort® technology for COM or TTY port control and support for virtually any industrial serial protocol
- > Multimaster/device sharing support for many major IA-protocols
- > DB-9M and screw terminals for serial port connection
- > Galvanically isolated (from earth ground)
- > Class 1, Div2 rated
- > Industry leading low latency
- > EIA-232/422/485 switch selectable
- > Easy configuration through web interface (HTTP)
- > Supports 802.3af Powered Ethernet

Overview

The Digi One IA RealPort device server easily allows any industrial device with a serial port to be connected to the Ethernet (such as Programmable Logic Controllers, process and quality equipment, motors, drives, bar-code readers, operator displays and other types of manufacturing equipment).

The Digi One IA RealPort is ideal for applications requiring COM ports, serial tunneling, or where TCP Socket, UDP Socket, or UDP Multicast functionality is needed. Digi's patented RealPort technology delivers the industry's most robust, reliable, and versatile COM port control and management. The Digi One IA RealPort also works with software applications using TCP/UDP Sockets allowing a serial device to interoperate with the software applications without the need to install a driver.

Multi-Master/multi-protocol, an industry first, is the most flexible, powerful, and innovative way to manage industrial serial devices from more than one host machine or location regardless of the industrial serial protocol that is native to the serial device. Simply put, multi-mastering allows a slave serial device using any of the supported serial port protocols to be managed from multiple host machines. A variety of serial port protocols, including Modbus ASCII/RTU, DF1 Full/Half-Duplex, ompoway/F, FINS, and Hostlink are supported. In addition, virtually any industrial serial protocol is supported when using our patented RealPort software or user-defined protocol.

Digi International, the leader in Connectware, makes device networking easy by manufacturing products and technologies that are cost-effective and easy to use. With over 20 million ports shipped worldwide, Digi has been offering the highest levels of performance, flexibility, and quality since 1985.

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EXHIBIT
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Making DEVICE NETWORKING *easy*

Features/Specifications

FEATURES

- Low latency
- TCP/UDP Socket Services
- UDP Multicast
- Multimastering/device sharing support
- Telnet, Reverse Telnet and extended Telnet RFC 2217
- Industrial Ethernet Protocols (Modbus/TCP, Ethernet/IP, Allen-Bradley Ethernet)
- Industrial Serial Protocols (DF1, Omron, Modbus)
- PPP
- HTTP for browser configurations
- Patented RealPort technology for COM and TTY ports
- SNMP (read/write)
- Digi Port Authority – Remote management diagnostics and Auto-discovery tool
- Flash upgradeable firmware
- DHCP/RARP, ARP-Ping, Static IP for IP Address assignment
- 10/100Base-T Ethernet support
- DB-9M and screw terminal block serial port
- Baud rates up to 230 Kbps
- 35mm DIN Rail mounting
- Screw terminal block power jack
- 9-30Vdc input
- Powered Ethernet 802.3af support and fail-over capability when used with 9-30Vdc input
- LED status for serial signals, power, Ethernet and diagnostics
- Full modem and hardware flow control

ENVIRONMENTAL

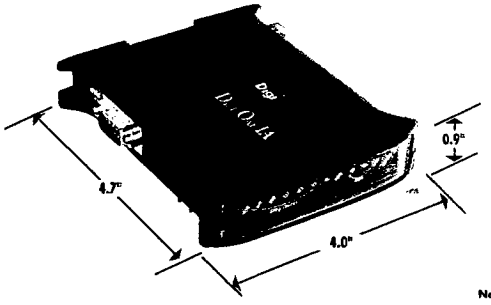
- Ambient temperature: 0°C to 60°C (32°F to 140°F)
- Relative humidity: 5% to 90% (non-condensing)

REGULATORY APPROVALS

- FCC Part 15, A
- CE
- UL Class 1 div 2
- ICES-003, A
- EN55022, A
- 6100-6-2 + EN55024
- UL 1950
- CSA 22.2 No 950
- EN 60950
- AS3548

DIMENSIONS

- Length: 4.7 in. (12 cm)
- Depth: 4 in (10.1 cm)
- Width: 0.9 in. (2.3 cm)
- Weight: 2.5oz (64 g)



POWER REQUIREMENTS

- 9-30Vdc @ .5 Amps max
- IEEE 802.3 af compliant

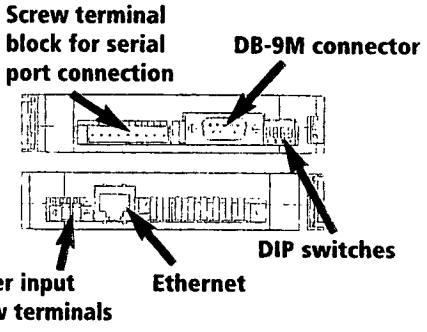
No power supply ships with this product.

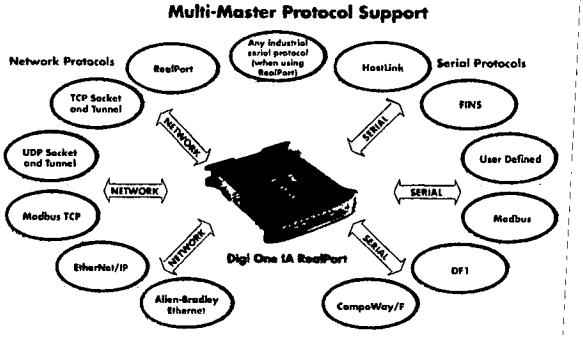
OPERATING SYSTEMS

RealPort drivers for COM/TTY support

- AIX
- HP-UX
- Linux
- Microsoft® Windows XP®
- Microsoft Windows 2000®
- Microsoft Windows NT®
- SCO® OpenServer™
- SCO UnixWare™
- Solaris™ (Intel)
- Solaris (SPARC)

Designed for Microsoft® Windows® XP





MODEL.....PART NUMBERS

Model	North America	International
Digi One IA RealPort	700001777	700001777

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91001155 A1/1102

Digi® Connectware™

DII 00477

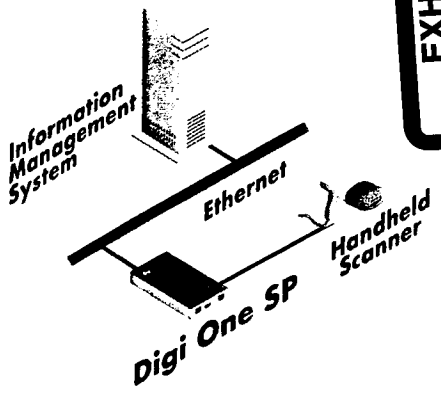
Product Data Sheet

Digi One™ SP

Device Server

The Digi One SP device server is designed for standard serial-to-Ethernet connectivity. It is ideal for applications requiring simple and easy-to-use data communications.

EXHIBIT 10



Features/Benefits

- Easy configuration using install CD
- > TCP/UDP Socket Services for broad device connectivity and application use
- > Auto-connect the serial device to networked server using raw, Telnet, Rlogin
- > Reverse Telnet for easy access of serial devices from network
- > Easy configuration through web interface (HTTP)
- > Switch selectable EIA-232/422/484 for simple interfacing to any type of serial device

Overview

The Digi One SP device server easily allows any device with a serial port to be connected to the Ethernet. The compact design of the Digi One SP delivers cost-effective performance and capability in one of the smallest form factors available.

Part of Digi's broad device server offering, the Digi One SP delivers standard serial-to-Ethernet connectivity and is ideal for serial tunneling applications or where TCP Socket, UDP Socket, or UDP Multicast functionality is needed. Serial tunneling allows two previously non-networked and isolated devices to easily communicate information and operate with existing installed software applications on an Ethernet network, instead of a long serial cable. The Digi One SP also works with software applications using TCP/UDP Sockets allowing a serial device to interoperate with the software applications without the need to install a driver.

The Digi One SP is easy to install locally or remotely through a variety of IP addressing methods (DHCP, RARP, ARP-Ping) along with an application (included on the installation CD that accompanies the product) that will automatically detect all Digi One SP devices on your network. Also included is a quick-start guide that supports making the network configuration of the product easy and hassle-free.

Digi International, the leader in Connectware, makes device networking easy by manufacturing products and technologies that are cost-effective and easy to use. With over 20 million ports shipped worldwide, Digi has been offering the highest levels of performance, flexibility, and quality since 1985.

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Features/Specifications

FEATURES

- TCP/UDP Socket Services
- UDP Multicast
- Telnet and Reverse Telnet
- HTTP
- DHCP/RARP/ARP-Ping for IP Address assignment
- 10/100Base-T Ethernet support
- DB-9M serial connector
- EIA-232/422/485 switch selectable
- Baud rates up to 230 Kbps
- Full modem and hardware flow control
- LED status for link and power

POWER REQUIREMENTS

- Ships with a 110/240 VAC power supply that uses 12Vdc @ .4 Amps max
- Input power supports 9-30Vdc @ .5Amps max

ENVIRONMENTAL

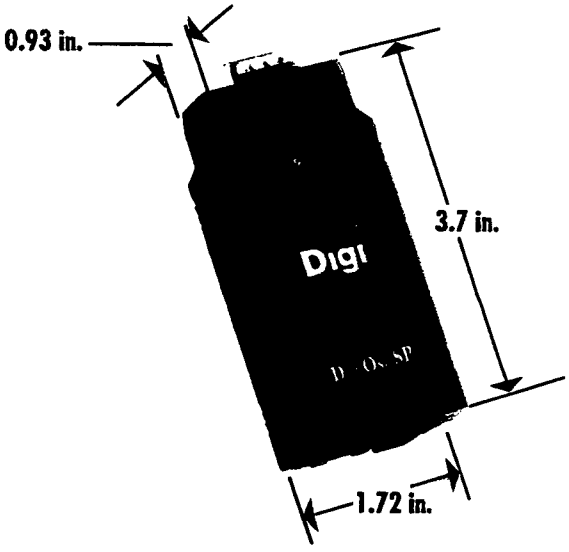
- Ambient temperature: 10°C to 45°C (50°F to 131°F)
- Relative humidity: 5% to 90% (non-condensing)

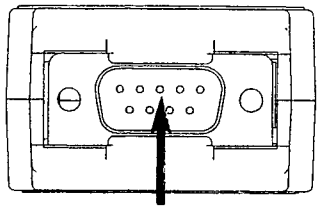
DIMENSIONS

- Length: 3.7 in (9.4 cm)
- Width: 1.72 in (4.3 cm)
- Depth: 0.93 in (2.3 cm)
- Weight: 2.29 oz (65 g)

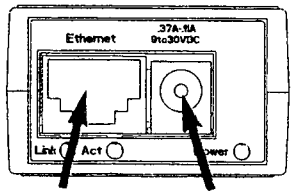
REGULATORY APPROVALS

- FCC Part 15, A
- CE
- EN5024-1
- EN 50082-1
- UL 1950
- CSA 22.2 No 950



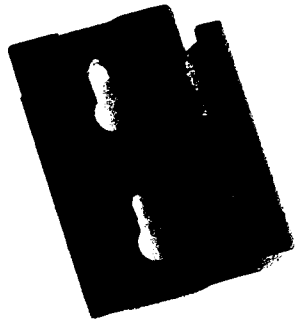


DB-9M connector



Ethernet **Power**

Available wall bracket



MODEL.....PART NUMBERS

Model	North America	International
Digi One SP	70001851	70001852
Accessories Available		
Wallmount bracket	76000662	76000662
DB-9F to DB-9F cross-over cable (4ft.)	76000642	76000642

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91001157 A1/1102

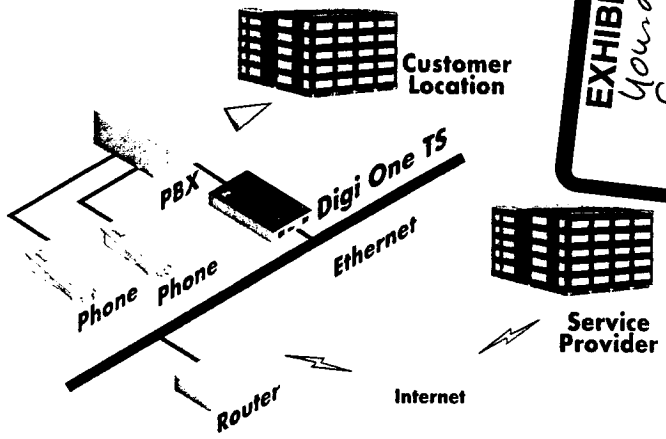
Connectware™

Product Data Sheet

Digi One™ TS

Device Server

The Digi One TS device server is designed for universal, high-performance serial-to-Ethernet connectivity. It is ideal for applications where secure device management and monitoring are critical.



EXHIBIT
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10/11/06

Features/Benefits

- Easily network-enable virtually any serial device
- > Patented Digi RealPort® Technology for COM or TTY port control and management
- > Switch selectable EIA-232/422/485 for simple interfacing to any type of serial device.
- > Monitoring and diagnostic utility for simple and efficient device monitoring and troubleshooting
- > Data Security via SSH v2
- > Port Buffering for data capture
- > Easy configuration through web interface (HTTP)
- > Industry leading low latency

Overview

The Digi One TS makes it easy to connect any serial device to your network. It combines the inherent benefits of data networking with proven asynchronous connectivity to deliver powerful yet simple Ethernet connectivity for all your serial devices.

Part of Digi's broad device server offering, the Digi One TS delivers universal, high-performance serial-to-Ethernet connectivity and is ideal for applications requiring COM ports, serial tunneling, or where TCP Socket, UDP Socket, or UDP Multicast functionality is needed. RealPort technology makes it possible to establish a connection between the host and networked serial device by creating a local COM or TTY port on the host computer, allowing software applications to work with networked device servers instead of requiring a host adapter.

The Digi One TS also delivers powerful features such as data security via SSH v2, port buffering and full SNMP management – making it ideal for applications like console management where device management and monitoring are critical.

The Digi One TS is also easy to install locally or remotely through a variety of IP addressing methods (DHCP, RARP, ARP-Ping) along with an application (included on the installation CD that accompanies the product) that will automatically detect all Digi One TS devices on your network. Also included is a quick-start guide that supports making the network configuration of the product easy and hassle-free.

Digi International, the leader in Connectware, makes device networking easy by manufacturing products and technologies that are cost-effective and easy to use. With over 20 million ports shipped worldwide, Digi has been offering the highest levels of performance, flexibility, and quality since 1985.

Digi®
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Making DEVICE NETWORKING *easy*

Features/Specifications

FEATURES

- Low latency
- TCP/UDP Socket Services
- UDP Multicast
- Telnet and Reverse Telnet
- Patented RealPort technology for COM and TTY ports
- PPP
- SSH v2
- Port Buffering
- Modbus/TCP
- HTTP
- SNMP (read/write)
- Digi Port Authority – Remote management diagnostics and auto-discovery tool
- DHCP/RARP/ARP-Ping for IP Address assignment
- 10/100Base-T Ethernet support
- RJ-45 serial port
- EIA-232/422/485 switch selectable
- Baud rates up to 230 Kbps
- Full modem and hardware flow control
- 9 - 30Vdc input
- Powered Ethernet (802.3af)
- LED status for link and power
- RJ-45/DB-9F crossover cable included for configuration

ENVIRONMENTAL

- Ambient temperature: 0°C to 60°C (32°F to 140°F)
- Relative humidity: 5% to 90% (non-condensing)

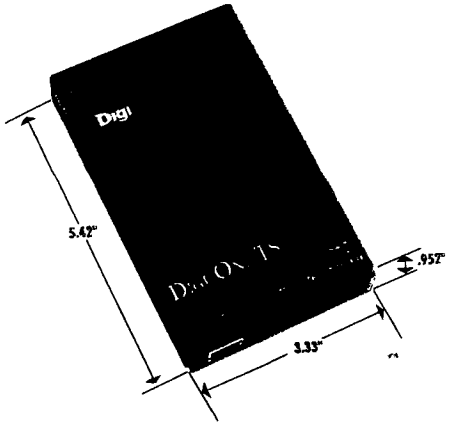
OPERATING SYSTEMS

- AIX
- HP-UX
- Linux
- Microsoft® Windows XP®
- Microsoft Windows 2000®
- Microsoft Windows NT®
- SCO® OpenServer™
- SCO UnixWare™
- Solaris™ (Intel)
- Solaris (SPARC)
- TCP/UDP Socket Services are operating system independent

Designed for Microsoft® Windows® XP

DIMENSIONS

- Length: 5.42 in (13.31 cm)
- Width: 3.33 in (8.46 cm)
- Depth: .952 in (2.42 cm)
- Product weight: 2.25 oz (64 g)



REGULATORY APPROVALS

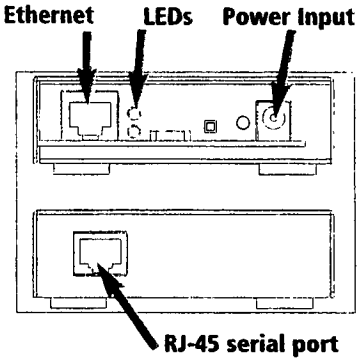
- FCC Part 15, A
- CE
- EN5024-1
- EN 50082-1
- UL 1950
- CSA 22.2 No 950

POWER REQUIREMENTS

- Ships with 110/240 VAC at 12Vdc @ .4 Amps max
- 9 - 30Vdc @ .5 Amps max

Powered Ethernet

- IEEE 802.3af compliant



MODEL.....PART NUMBERS

Model	North America	International
Digi One TS Ships with a wall mount bracket	700001805	700001832

DIGI SERVICE AND SUPPORT

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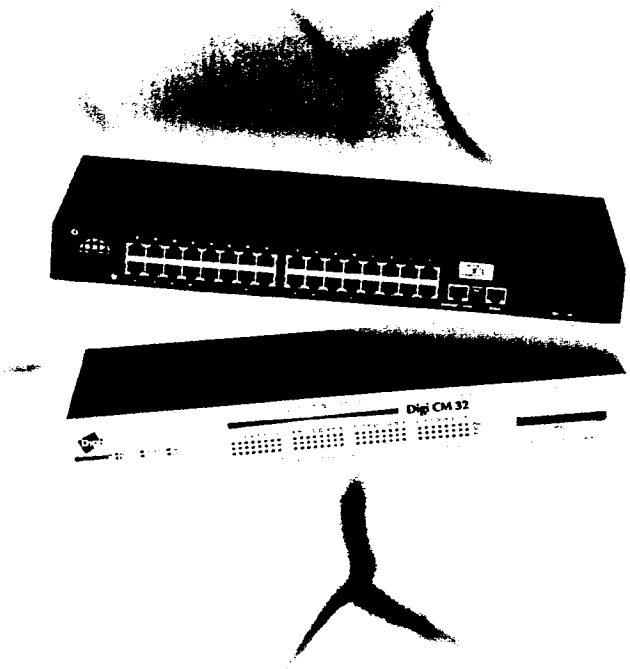
Digi® Connectware™

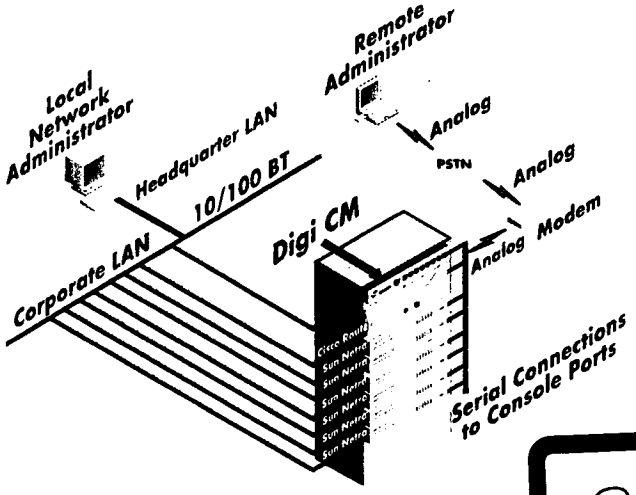
Product Data Sheet



Digi CM™

Console Management Server

The Digi CM allows you to manage your Sun servers, Cisco routers, PBXs and any network component with a serial management port from anywhere at anytime.



EXHIBIT
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Ex. 12
10/16/06 108

Features/Benefits

- Sun, Cisco, IBM, HP, Unix and Linux compatible
- SSH v2
- 1U rack-mountable for better co-location with network hardware
- 16- and 32-port console management
- Port buffering/logging
- Solaris Ready
- Auto-Alert
- RADIUS, TACACS+ and LDAP Authentication
- Multi-level menuing

Overview

The next generation, Digi CM™, is an embedded Linux OS console management device that provides simple and easy to use secure console port management for Sun servers, routers and switches in a 1U rack-mountable solution. The Digi CM delivers all the console management features you expect. Simple installation and an easy to use WebUI make it the ideal solution for demanding system administrators.

In addition to the console management functions, which allow system administrators to securely monitor and control IT equipment over Ethernet LANs or dial-up modem connections, the Digi CM incorporates a PC card slot to support a variety of applications. A Flash memory card can be used to store logs and configuration files. A modem card can be used to dial in to the Digi CM, independent of the network, saving space in a rack environment.

Secure clustering on the Digi CM allows encrypted access of up to 512 devices connected to multiple master or slave Digi CMs. Digi's enhanced Web-based GUI provides a simple and easy way to find the information you need, providing visibility to all ports on one screen with point and click capability. Cabling is simplified. Digi CM RJ-45 8-pin configuration matches all Sun and Cisco RJ-45 console port configurations, allowing administrators to use CAT 5 cabling without pinout concerns.

Digi International, the leader in Connectware, makes device networking easy by manufacturing products and technologies that are cost-effective and easy to use. With over 20 million ports shipped worldwide, Digi has been offering the highest levels of performance, flexibility, and quality since 1985.

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Making DEVICE NETWORKING

Features/Specifications

FEATURES

- Security
  - SSH v2 server and client
  - SSL
  - IP Filtering
- Authentication
  - TACACS+
  - RADIUS w/SSH
  - LDAP
  - User access per port
  - Local user database
- Management
  - Command line
  - WEB – HTTP/HTTPS
  - SNMP
  - Custom applications
  - Port Triggers and Alerts
  - Multi level menuing
  - Auto-discovery
- Data capture
  - Port buffering
  - Logging (syslog, NFS)
- Port access
  - Telnet/SSH with menuing
  - Reverse Telnet/SSH
  - HTTP/HTTPS
- Additional protocols supported
  - DHCP, PPP, SLIP, NTP, FTP
- Solaris Ready
- Multiple users per port, up to 4
- Flash upgradeable
- LEDs – 3 per serial port, 5 Ethernet, 1 CPU
- SSH sessions simultaneously on all ports
- Secure Clustering - Single IP for multiple CM devices
- IP addresses per port

POWER REQUIREMENTS

- Internal 100-240 VAC, 50/60 Hz, 40W max
- Power supply MTBF, 11 years

CONNECTORS

- 16 or 32 RJ-45 EIA-232 serial ports
- One RJ-45 EIA-232 console port
- One RJ-45 10/100Base-T Ethernet port

OPERATING SYSTEMS

- Emdedded Linux (Hard Hat Distribution)
  http://ftp.digi.com/support.firmware/pscm32/

ADDITIONAL PC CARDS

- CompactFlash storage card
- Wireless LAN adapter (802.11b)
- Ethernet LAN adapter
- PSTN/CDMA modem card

ENVIRONMENTAL

- Ambient temperature: 5°C to 50°C (41°F to 122°F)

MEMORY

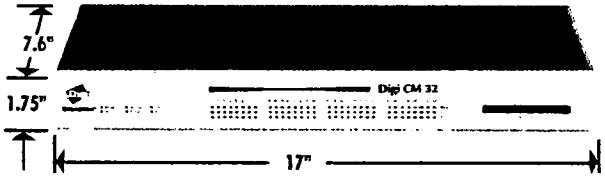
- 64MB SDRAM
- 8MB Flash

REGULATORY APPROVALS

- FCC Part 15, A
- UL 1950
- EN55022, A
- EN55024

DIMENSIONS

- Length: 17 in. (43.2 cm)
- Depth: 1.75 in (4.5 cm)
- Width: 7.6 in. (21.6 cm)
- Weight: 2.1 lbs. (960 g)



MODEL.....PART NUMBERS

Model	North America	International
Digi CM 16	70001910	70001911
Digi CM 32	70001908	70001909
Cable Adapters		
Digi CM DB-25M Modem Adapter	76000670	76000670
Digi CM DB-9F Console Adapter	76000671	76000671
Digi CM DB-25M Console Adapter	76000672	76000672
Digi CM DB-25F Console Adapter	76000673	76000673

DIGI SERVICE AND SUPPORT

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91001129 C1/103

Connectware™

Product Data Sheet

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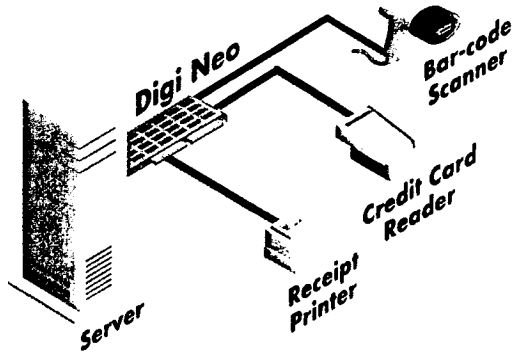
Digi Neo™

Multiport Serial Cards

The Digi Neo is fast, flexible, and has the form factor for today's serial-port needs. The low profile PCI board easily exceeds 460.8 Kbps. The cabling options and software driver options allow flexibility in installations.



Features/Benefits

- **Four or eight port EIA-232 solutions on PCI platform**
- **> Low profile**
- **> Low latency**
- **> Surge suppression on every signal**
- **> Enhanced monitoring/ diagnostic tool**
- **> Windows, UNIX and Linux drivers**
- **> Extensive cabling/connector options for DB-25, RJ-45 and DB-9 connections**

Overview

The Digi Neo™ can easily give your business a competitive advantage by network-enabling your serial devices. The low profile size of the Digi Neo makes it one of the smallest form factor serial card solutions on the market today.

The Digi Neo leverages an Application Specific Integrated Circuit (ASIC) to provide throughput speeds exceeding 460.8 Kbps, large buffers for data transfer, low latency, and baud rate customization. These features, along with surge suppression and the availability of drivers for all the most popular operating systems, make the Digi Neo ideal for point-of-sale, industrial automation, factory control, kiosks, and data collection applications.

The extensive cabling options of the Digi Neo (RJ-45, DB-9, DB-25) set a new standard for ease-of-installation and connector reliability while delivering the only solution for tighter workspaces and specialized server/PC environments.

The Digi Neo provides an enhanced software monitoring and diagnostic tool for Windows® operating systems. A similar tool for Unix and Linux operating systems also supports the Digi Neo.

Digi International, the leader in Connectware, makes device networking easy by manufacturing products and technologies that are cost-effective and easy to use. With over 20 million ports shipped worldwide, Digi has been offering the highest levels of performance, flexibility, and quality since 1985.

Digi®

Connectware™

Features/Specifications

FEATURES

- Four or eight port EIA-232 solution on PCI platform
- Low profile option
- Surge suppression on every signal
- Throughput exceeding 460.8 Kbps
- Enhanced monitoring/diagnostic configuration tool
- Windows, UNIX and Linux drivers
- Extensive cabling/connector options for DB-25, RJ-45 and DB-9
- Full modem control
- Hardware or software flow control
- Low latency
- Custom baud rates

REGULATORY APPROVALS

- FCC Part 15, Class B
- EN55022, Class B
- VCCI Class B
- ICES-003, Class B
- AS3548
- EN55024
- EN60950
- UL 1950
- AS3260
- CSA 22.2, No. 950

OPERATING SYSTEMS

- Microsoft® Windows XP
- Microsoft® Windows 2000
- Microsoft® Windows NT
- Microsoft® Windows 95/98/Me
- Linux
- SCO® OpenServer

Most drivers ship with product on CD-ROM. Drivers and driver updates also available on our Website at www.digi.com/drivers.

HARDWARE REQUIREMENTS

Power

Digi Neo 4 and 8 port

- +5V +/- 5%, 20mA typical, 100mA maximum
- +12V +/- 5%, 100mA typical, 150mA maximum

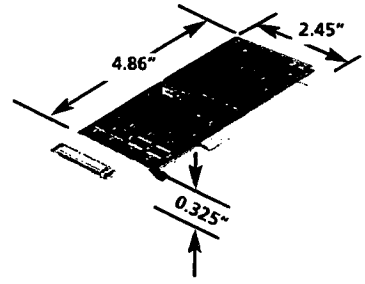
System

- One 32-bit slot
- IRQ is assigned

DIMENSIONS

Four or eight port

- Length: 4.86 in (12.34 cm)
- Width: 0.325 in (0.83 cm)
- Height: 2.45 in (6.22 cm)
- Weight: 1.41 oz. (40 grams)



MODEL.....PART NUMBERS

Model	Part Number
PCI EIA-232	
Digi Neo 4 port (cables not included, see below)	77000819
Digi Neo 4-port Low Profile (cables not included, see below)	77000835
Digi Neo 4 port (includes DB-25M fan-out cable)	70001731
Digi Neo 8 port (cables not included, see below)	77000820
Digi Neo 8-port Low Profile (cables not included, see below)	77000836
Digi Neo 8 port (includes DB-25M fan-out cable)	70001732
Available Accessories	
4 port DB-25M DTE fan-out cable	76000522
4 port DB-9M DTE fan-out cable	76000528
4 port DB-25F DTE fan-out cable	76000532
4 port DB-9F DTE fan-out cable	76000530
4 port DB-25M DTE connector box with cable	76000524
4 port DB-9M DTE connector box with cable	76000560
4 port RJ-45 DTE connector box with cable	76000526
8 port DB-25M DTE fan-out cable	76000523
8 port DB-9M DTE fan-out cable	76000529
8 port DB-25F DTE fan-out cable	76000533
8 port DB-9F DTE fan-out cable	76000531
8 port DB-25M DTE connector box with cable	76000525
8 port DB-9M DTE connector box with cable	76000561
8 port RJ-45 DTE connector box with cable	76000527
10-foot HD-68M cable (use when additional length is required)	76000559
HD-68M to DB-78F converter (use with legacy accessories)	76000534

ENVIRONMENTAL

- Ambient temperature: 50° F to 131° F (10° C to 55° C)
- Storage temperature: -13°F to 185°F (-25°C to 85°C)
- Relative Humidity: 5% to 90%
- Altitude: 0 to 8,000 feet (0 to 2438 meters)
- Air movement: 30 CFM forced

CONNECTORS

Digi Neo 4 and 8

- Single HD-68 female connector
- Connector options:
  - DB-25 and DB-9 four-foot fan-out cables - male or female
  - DB-25, RJ-45 or DB-9 connector box with HD-68M six-foot connector cable

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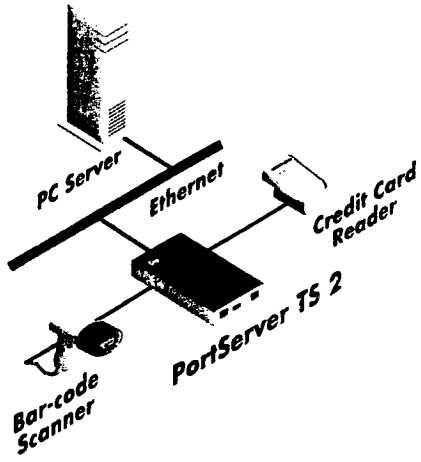
Connectware™

Product Data Sheet

PortServer® TS 2/4

Device Server

The PortServer TS 2/4 device servers are designed for standard serial-to-Ethernet connectivity. They are ideal for applications requiring seamless integration to existing application environments and network device management.



Features/Benefits

- **Patented Digi RealPort® technology for COM or TTY port control and management**
- **TCP/UDP Socket Services for broad device connectivity and application use**
- **Reverse Telnet and auto-connect using Rlogin, Telnet or raw**
- **Easy configuration through web interface (HTTP)**
- **SNMP for easy network management**
- **PPP for network enabling serial device**
- **Industry leading low latency**

Overview

The PortServer TS 2/4 Family delivers simple, reliable and cost-effective network connectivity for multiple serial devices. They easily address the growing need to connect individual devices to the network over industry standard Ethernet in many applications – including retail/point of sale, building control, and medical point-of-care.

Part of Digi's broad device server offering, the PortServer TS 2/4 Family delivers standard serial-to-Ethernet connectivity and are ideal for applications requiring COM ports, serial tunneling, or where TCP Socket, UDP Socket, or UDP Multicast functionality is needed. Digi's patented RealPort technology delivers the industry's most robust, reliable, and versatile COM port control and management. RealPort technology makes it possible to establish a connection between the host and networked serial device by creating a local COM or TTY port on the host computer, allowing software applications to work with networked device servers instead of requiring host adapter.

The PortServer TS 2/4 Family is easy to install locally or remotely through a variety of IP addressing methods (DHCP, RARP, ARP-Ping) along with an application (included on the installation CD that accompanies the product) that will automatically detect all PortServer TS 2/4 and Digi One devices on your network.

Digi International, the leader in Connectware, makes device networking easy by manufacturing products and technologies that are cost-effective and easy to use. With over 20 million ports shipped worldwide, Digi has been offering the highest levels of performance, flexibility, and quality since 1985.

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Digi®
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Making DEVICE NETWORKING

Features/Specifications

FEATURES

- Low latency
- TCP/UDP Socket Services
- UDP Multicast
- Telnet and Reverse Telnet
- Patented RealPort technology for COM and TTY ports
- RFC2217
- PPP
- HTTP
- SNMP (read/write)
- Digi Port Authority – Remote management diagnostics and Auto-discovery tool
- DHCP/RARP/ARP-Ping, Static IP for IP Address assignment
- 10/100Base-T Ethernet support
- RJ-45 serial port; EIA-232 interface
- Baud rates up to 230 Kbps
- Full modem and hardware flow control
- LED status for link and power
- RJ-45/DB-9F crossover cable included for configuration

REGULATORY APPROVALS

- FCC Part 15, B
- CE
- ICES-003, B
- EN55022, B
- EN50082-2
- UL 1950
- CSA 22.2 No 950
- EN 60950
- AS3548

OPERATING SYSTEMS

RealPort drivers for COM/TTY support

- AIX
- Compaq Tru 64
- HP-UX
- Linux
- Microsoft® Windows XP®
- Microsoft Windows 2000®
- Microsoft Windows NT®
- Microsoft Windows 98/Me
- SCO® OpenServer™
- SCO UnixWare™
- Solaris™ (Intel)
- Solaris (SPARC)
- TCP/UDP Socket Services are operating system independent

Designed for Microsoft® Windows® XP

DIMENSIONS

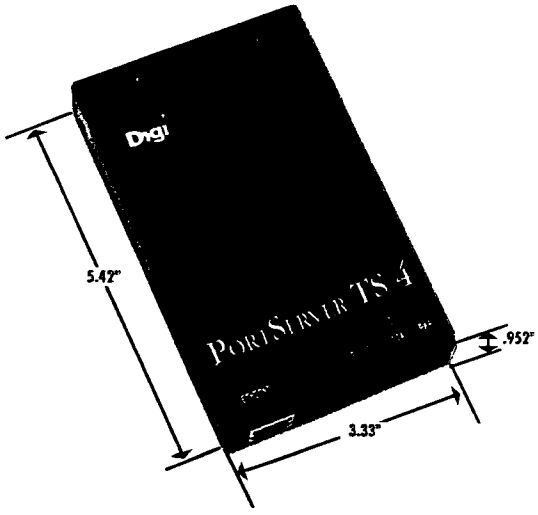
- Length: 5.42 in (13.31 cm)
- Width: 3.3 in (8.46 cm)
- Depth: .952 in (2.42 cm)
- Weight: 2.25 oz (64 g)

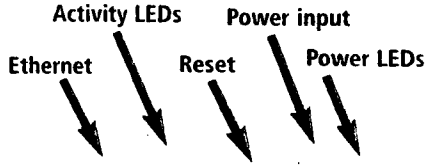
POWER REQUIREMENTS

- Ships with 110/240 VAC at 3.3Vdc @ .75 Amps max

ENVIRONMENTAL

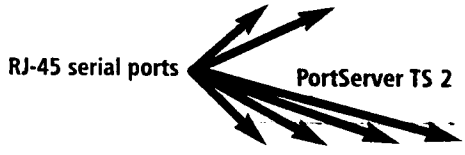
- Ambient temperature: 0°C to 60°C (32°F to 140°F)
- Relative humidity: 5% to 90% (non-condensing)
- Extended temperature models available: -25° C to 70°C (-13° F to 158°F)





MODEL.....PART NUMBERS

Model	North America	International
PortServer TS 2	700001750	700001753
PortServer TS 4	700001751	700001754
Extended temperature models	Call	Call
Also available Digi One RealPort (1-port model)	700001749	700001752



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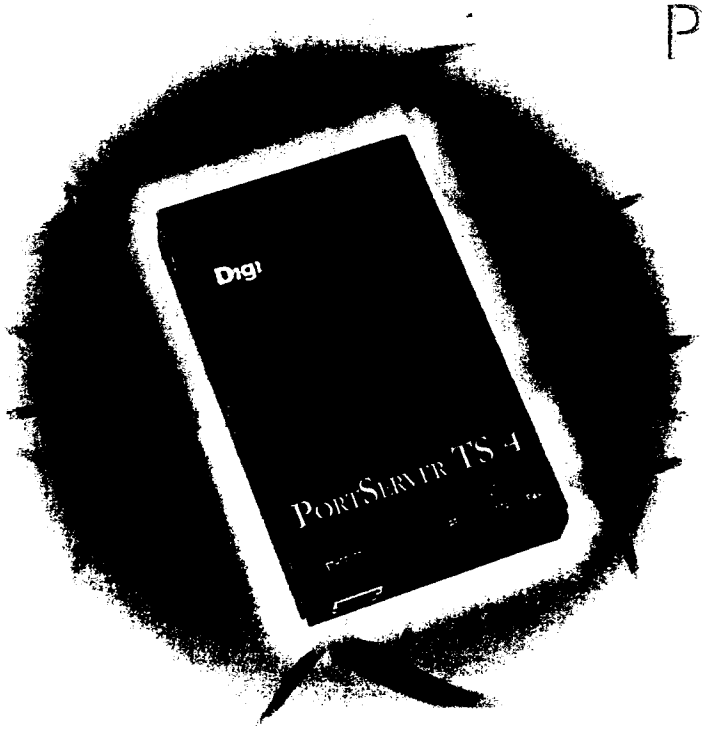
Digi® Connectware™

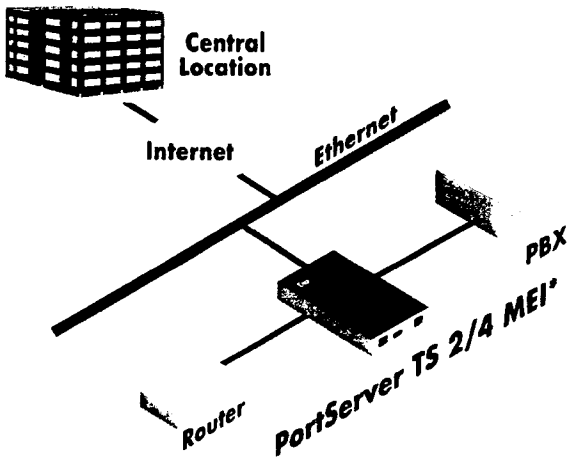
Product Data Sheet

PortServer® TS 2/4 MEI

Device Server



The PortServer TS 2 and 4 MEI device servers are designed for universal, high-performance serial-to-Ethernet connectivity. They are ideal for applications where secure device management and monitoring are critical.



*MEI = Multi-Electrical Interface (EIA-232/422/485)

Features/Benefits

Easily network-enable multiple serial devices

- **Switch selectable EIA-232/422/485 for simple interfacing to any type of serial device**
- **Patented Digi RealPort® Technology for COM or TTY port control and management**
- **Monitoring and diagnostic utility for simple and efficient device monitoring and troubleshooting**
- **Modem emulation for easy integration and replacement of modems**
- **Data Security via SSH v2**
- **Port Buffering for data capture**
- **Easy configuration through web interface (HTTP)**
- **SNMP for easy network management**
- **PPP for network enabling serial device**
- **Industry leading low latency**

Overview

The PortServer TS 2/4 MEI Family makes it easy to connect multiple serial devices to your network. It combines the inherent benefits of data networking with proven asynchronous connectivity to deliver powerful yet simple Ethernet connectivity for all your serial devices.

Part of Digi's broad device server offering, the PortServer TS 2/4 MEI Family delivers universal, high-performance multi-port serial-to-Ethernet connectivity and are ideal for applications requiring COM ports, serial tunneling, or where TCP Socket, UDP Socket, or UDP Multicast functionality is needed. RealPort technology makes it possible to establish a connection between the host and networked serial device by creating a local COM or TTY port on the host computer, allowing software applications to work with networked device servers instead of requiring a host adapter.

The PortServer TS 2/4 MEI Family also delivers powerful features such as data security via SSH v2, port buffering and full SNMP management – making it ideal for applications like console management where device management and monitoring are critical.

The PortServer TS 2/4 MEI Family is also easy to install locally or remotely through a variety of IP addressing methods (DHCP, RARP, ARP-Ping) along with an application (included on the installation CD that accompanies the product) that will automatically detect all PortServer TS 2/4 and Digi One devices on your network.

Digi International, the leader in Connectware, makes device networking easy by manufacturing products and technologies that are cost-effective and easy to use. With over 20 million ports shipped worldwide, Digi has been offering the highest levels of performance, flexibility, and quality since 1985.

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Digi®

Connectware™

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Making DEVICE NETWORKING *easy*

Features/Specifications

FEATURES

- Low latency
- TCP/UDP Socket Services
- UDP Multicast
- Telnet and Reverse Telnet
- Patented RealPort technology for COM and TTY ports
- RFC221
- Modem emulation
- PPP
- SSH v2
- Port Buffering
- Modbus/TCP
- HTTP
- SNMP (read/write)
- Digi Port Authority – Remote management diagnostics and auto-discovery tool
- DHCP/RARP/ARP-Ping for IP Address assignment
- 10/100Base-T Ethernet support
- RJ-45 serial port connection
- EIA-232/422/485 switch selectable
- Baud rates up to 230 Kbps
- Full modem and hardware flow control
- 9 - 30Vdc input
- Powered Ethernet (802.3af)
- LED status for link and power
- RJ-45/DB-9F crossover cable included for configuration

ENVIRONMENTAL

- Ambient temperature: 0°C to 60°C (32°F to 140°F)
- Relative humidity: 5% to 90% (non-condensing)

OPERATING SYSTEMS

- AIX
- Compaq Tru 64
- HP-UX
- Linux
- Microsoft® Windows XP®
- Microsoft Windows 2000®
- Microsoft Windows NT®
- Microsoft Windows 98/ME
- SCO® OpenServer™
- SCO UnixWare™
- Solaris™ (Intel)
- Solaris (SPARC)
- TCP/UDP Socket Services are operating system independent

Designed for Microsoft® Windows® XP

DIMENSIONS

- Length: 5.42 in (13.31 cm)
- Width: 3.33 in (8.46 cm)
- Depth: .952 in (2.42 cm)
- Product weight: 2.25 oz (64 g)

REGULATORY APPROVALS

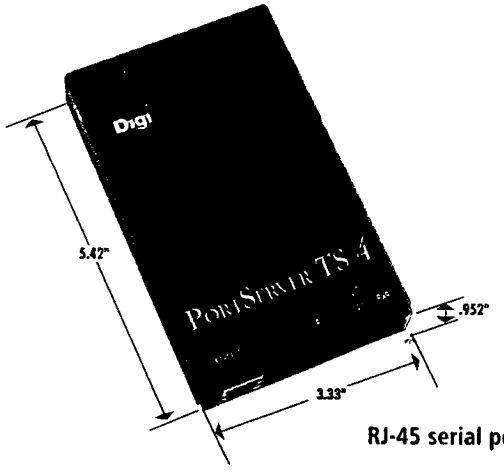
- FCC Part 15, A
- CE
- EN5024-1
- EN 50082-1
- UL 1950
- CSA 22.2 No 950

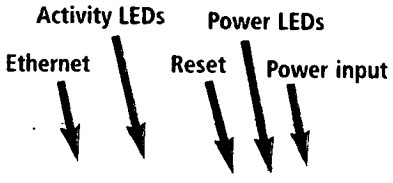
POWER REQUIREMENTS

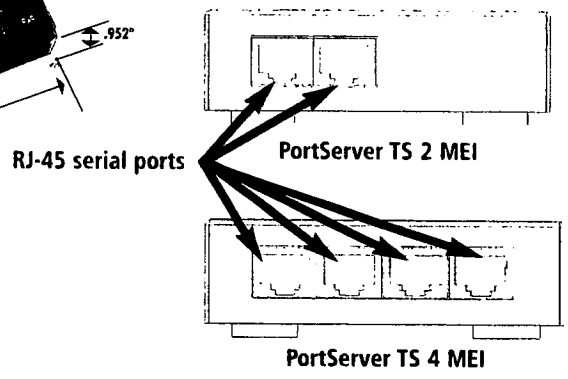
- Ships with 100/240 VAC at 12Vdc @ .4 Amps max
- 9 - 30Vdc @ .5 Amps max

Powered Ethernet

- IEEE 802.3af compliant







MODEL.....PART NUMBERS

Model	North America	International
PortServer TS 2 MEI*	700001806	700001833
PortServer TS 4 MEI*	700001807	700001834
Also available Digi One TS (1-port model)	700001805	700001832

*MEI = Multi-Electrical Interface (EIA-232/422/485)

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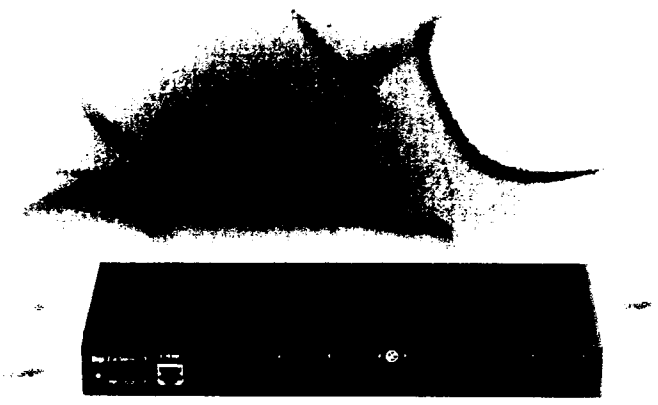
Digi® Connectware™

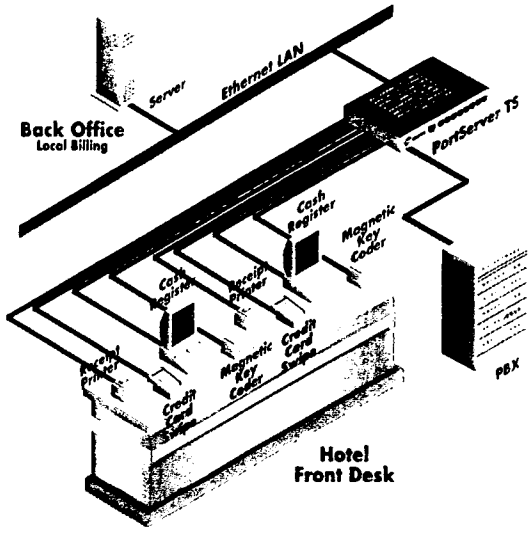
Product Data Sheet

PortServer® TS 8/16

Terminal Server



The PortServer TS 8/16 is the intelligent solution when your application calls for the efficient management of serial to Ethernet connectivity. These products provide robust feature sets with an easy to use web interface for a cost-effective eight and 16 EIA-232 serial port solution.



EXHIBIT
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Features/Benefits

- **Cost-effective network to serial connectivity**
- **> SSH v2 assures encrypted connections**
- **> Digi RealPort® technology provides local serial port functionality**
- **> Ports may be shared between multiple hosts running different operating systems**
- **> Easy IP assignment with DHCP, RARP and through a serial port**
- **> Supports SNMP for easy management**
- **> Supports RADIUS Authentication with SSH v2**

Overview

With the most robust feature set in the market, the PortServer TS Family of terminal servers delivers intelligent, reliable and cost-effective network serial connectivity for a wide range of applications. Features include Digi's patented RealPort® technology that provides local serial port functionality, and incoming/outgoing Rlogin and Telnet sessions on each port giving network system administrators a higher level of control over those network connected serial devices. SSH v2 provides the most robust security to protect against unauthorized monitoring of LAN traffic. Port Buffering allows the network system administrator to capture vital information from the serial ports of managed UNIX servers, routers and other networked equipment for problem resolution.

Digi Port Authority - Remote (DPA –Remote) is a management tool for monitoring network and serial activity from a Windows or UNIX based client or server. DPA – Remote provides live graphing of serial and Ethernet activity plus the ability to see signals on all ports for troubleshooting cable or flow control issues. The PortServer TS Family supports data center console port management applications and serial to Ethernet connections to database applications such as property management, POS, data collection, travel reservations and information services.

Digi International, the leader in Connectware, makes device networking easy by manufacturing products and technologies that are cost-effective and easy to use. With over 20 million ports shipped worldwide, Digi has been offering the highest levels of performance, flexibility, and quality since 1985.

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Features/Specifications

FEATURES

PortServer TS 8/16

- Connects to 10/100 Mbp Ethernet LAN
- DHCP, RARP and ARP-Ping for easy IP address assignment
- HTTP for easy configuration with a browser
- Telnet, Reverse Telnet, Rlogin and auto-connect
- Up to nine Telnet or Rlogin sessions per port
- TCP and UDP Socket support
- Password access
- PPP (PAP & CHAP)
- Line Printer Daemon (LPD)
- SNMP (read and write)
- DPA-Remote for easy monitoring
- Easily upgrade firmware via TFTP
- Save/Restore configuration to host
- Surge protection all ports
- 230 Kbps throughput on all ports
- Full modem and hardware flow control
- LED's for serial and Ethernet activity
- RADIUS
- SSH v2
- Port Buffering up to 64 Kbps per port
- 19" mounting brackets for PortServer TS 16 AC rack
- 19" and 23" mounting brackets for PortServer TS 16 DC rack

OPERATING SYSTEMS

- AIX
- HP-UX
- Linux
- Microsoft Windows XP
- Microsoft® Windows 2000®
- Microsoft® Windows NT®
- NCR UNIX MP-RAS
- SCO® OpenServer™
- SCO UnixWare™
- Solaris™(Intel)
- Solaris (SPARC)

Designed for Microsoft® Windows® XP

DIMENSIONS

PortServer TS 8

- 8.3 in (length) x 3.7 in (width) x 1 in (depth)

3.05 lbs (weight)

PortServer TS 16

- 13.4 in (length) x 6.6 in (width) x 1.4 in (depth)

5.3 lbs (weight)

PortServer TS 16 Rack

- 16.8 in (length) x 6.6 in (width) x 1.6 in (depth)

7.05 lbs (weight)

REALPORT SOFTWARE

- Local emulation of UNIX TTY and Microsoft COM ports
- Transparent printing under UNIX
- Single TCP/IP connection per 16 port block reduces Ethernet traffic and minimizes host CPU utilization

REGULATORY APPROVALS

PortServer TS 8

- FCC Part 15, Class A
- ICES-003 Class A
- EN55022, Class A
- EN 55024
- UL 1950
- CSA 22.2 No 950
- EN 60950
- AS3548
- VCCI

PortServer TS 16

- FCC Part 15, Class B
- EN55022, Class B
- AS3548
- EN55024
- EN 60950
- EN 60950
- UL 1950
- CSA 22.2 No 950
- VCCI

POWER REQUIREMENTS

PortServer TS 8

- External, 100 - 240 VAC, 50/60 Hz, 13W typ.

PortServer TS 16 desktop and rack

- Internal, 100 - 240 VAC, 50/50 Hz, 100W typ.

PortServer TS 16 48Vdc

- Internal 36-72Vdc, 25W typ.

PortServer TS 8 48Vdc

- External 36-72Vdc, 20W typ.

ENVIRONMENTAL

- Ambient temperature:10°C to 55°C (50°F to 130°F)
- Relative humidity: 5% to 90% (non-condensing)

DIGI PORT AUTHORITY REMOTE

- Remote monitoring application
- Ports Status
- Ethernet Status

MODEL.....PART NUMBERS

Model	North America	International
Digi PortServer TS 8	70001734	70001741
Digi PortServer TS 8, 48 Vdc	70001885	70001885
Digi PortServer TS 16	70001733	70001738
Digi PortServer TS 16 Rack	70001742	70001743
Digi PortServer TS 16 Rack, 48 Vdc	70001747	70001747
6' cable Rj-45 to RJ-45 for Sun Netra/Cisco	76000631	76000631
6' cable Rj-45 to RJ-45 for Sun Netra/Cisco bundle of 8	76000632	76000632
6' cable Rj-45 to RJ-45 for Sun Netra/Cisco bundle of 16	76000633	76000633

DIGI SERVICE AND SUPPORT

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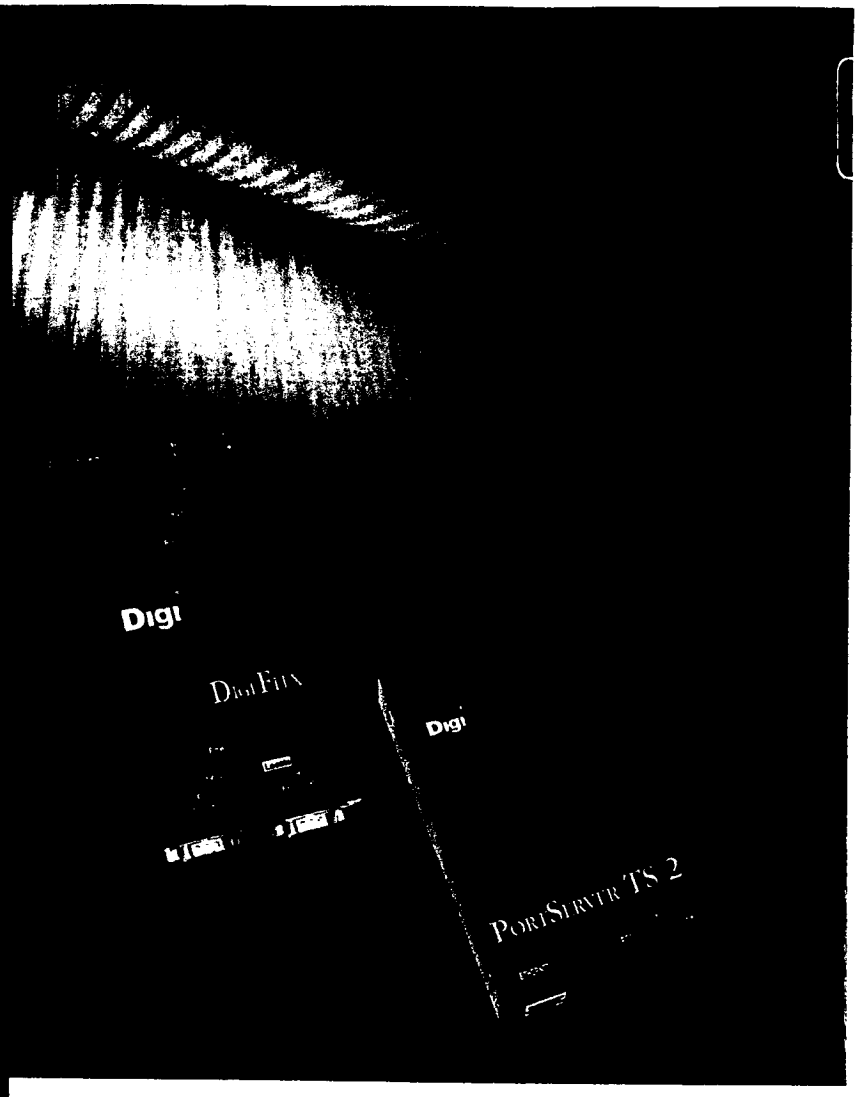
PRODUCT DATA SHEET

Digi Flex/PortServer TS 2

High-Performance Two-port Solutions



- > Network enable virtually any serial device
- > Patented Digi RealPort[c] technology provides local serial port functionality
- > Easy installation and configuration with browsers (via HTTP)
- > Supports 802.3af Powered Ethernet
- > Up to 230 Kbps throughput
- > Available for EIA-232, EIA-422 and EIA-485 applications

EXHIBIT
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The Digi Flex device servers and PortServer TS 2 deliver simple, reliable and cost-effective network connectivity for all your serial devices. Digi's device server products address the growing need to connect individual devices to the network over industry-standard Ethernet connections in many applications -- especially in the building automation, retail/point-of-sale, and medical markets.

Both the Digi Flex and PortServer TS 2 deliver market leading features including:

- Patented Digi RealPort® technology for COM or TTY port control and management – the industry's most robust, reliable and versatile COM port redirector
- Switch selectable EIA-232/422/485 for simple interfacing to any type of serial device
- Powered Ethernet (802.3af) support which eliminates the need for an external power supply when applied in an application with Powered Ethernet switches
- 10/100Base-T network interface
- Easy configuration through the web interface (HTTP)
- Monitoring and diagnostics utility for simple and efficient device monitoring and troubleshooting
- Flash upgradeable firmware allows simple and convenient updates to enhance and future-proof application performance
- Advanced features including DHCP, SNMP, PPP and Modbus/TCP support

The Digi Flex also provides secure encrypted information transfer via SSL and HTTPS, routing functionality including RIP 1 & 2, Embedded firewall, and static routing, and is available in a model with an integrated internal V.90 modem. Overall, the high-performance Digi Flex provides the most comprehensive feature offering available for a two-port device server to meet the application needs of today and the future.

The PortServer TS 2 is part of Digi's PortServer TS family which offers connectivity solutions from two to 16-ports per IP address. The PortServer TS family offers the features most sought after in connecting and managing serial devices over the network.

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Connectware™

DII 00492

FEATURES

PortServer TS/Digi Flex
- > Connects to 10/100 Mbps Ethernet LAN
- > Telnet, Reverse Telnet, Rlogin and auto connect support
- > Password access
- > Supports DHCP and RARP allowing for easy IP configuration
- > PPP
- > SNMP management
- > Patented Digi RealPort technology for COM and TTY ports
- > Upgradeable firmware via TFTP
- > Full modem and hardware flow control
- > Surge protection on all ports
- > Powered Ethernet support (802.3af)
- > 9 - 30 VDC

Digi Flex
- > DB-9F serial connector
- > EIA-232/422/485 switch selectable on both ports
- > RemoteCom software to support Windows 95/98/NT/ME/2000 environments
- > SSL v.2, v.3 and HTTPS assure encrypted information transfer
- > Mux mode for operating in multi-master and broadcast messaging environments
- > RADIUS
- > Routing functionality including RIP 1 & 2, Embedded firewall, and static routing
- > Support internal V.90 modem via optional model

PortServer TS 2
- > RJ-45 serial connector
- > EIA-232/422/485 switch selectable on port one, EIA-232 on port two

REGULATORY APPROVALS

PortServer TS 2
- > FCC Part 15, Class B
- > EN55022, Class B
- > AS3548
- > EN55024
- > EN 60950
- > UL 1950
- > CSA 22.2 No 950
- > VCCI

Digi Flex
- > FCC Part 15, Class A
- > EN55022, Class A
- > AS3548
- > EN55024
- > EN 60950
- > UL 1950
- > CSA 22.2 No 950
- > VCCI

DIMENSIONS

PortServer TS 2
- > Length: 5.25 in (13.34 cm)
- > Width: 3.35 in (8.5 cm)
- > Depth: 1.089 in (2.77 cm)
- > Product weight: 5.6 oz (158.8 g)

Digi Flex
- > Length: 6.3 in (16 cm)
- > Width: 3.35 in (8.5 cm)
- > Depth: 1.1 in (2.8cm)
- > Weight: 7.2 oz (204.1 g)

MODEL/PART NUMBERS

Model/Part Numbers	North America	International
Digi Flex	70001808	70001809
Digi Flex with modem	call	call
PortServer TS 2 (EIA-232/422/485)	70001806	70001833
PortServer TS 2 (EIA-232 only)	70001750	70001753

POWER REQUIREMENTS

Digi Flex/PortServer TS 2
- > 110-230 VAC, 50/60Hz
- > 9-30VDC @.5Amps max
- > Ships with 12VDC power supply @.4Amps
- > 802.3 af (draft) compliant

OPERATING SYSTEMS

Digi Flex/PortServer TS 2 using RealPort
- > AIX
- > HP-UX
- > Linux
- > Microsoft® Windows XP®
- > Microsoft Windows 2000®
- > Microsoft Windows NT®
- > SCO® OpenServer™
- > SCO UnixWare™
- > Solaris™ (Intel)
- > Solaris (SPARC)

Dig Flex using Remote COM
- > Microsoft® Windows 95/98/ME

REALPORT SOFTWARE

- > Local emulation of UNIX TTY and Microsoft COM ports
- > Transparent printing under UNIX
- > Single TCP/IP connection per 16 port block reduces Ethernet traffic and minimizes host CPU utilization

ENVIRONMENTAL

- > Ambient temperature: 0°C to 60°C (32°F to 140°F)
- > Relative humidity: 5% to 90% (non-condensing)

DIGI SERVICE AND SUPPORT

You can purchase with confidence knowing that Digi is here to support you with expert technical support and a strong five-year warranty.

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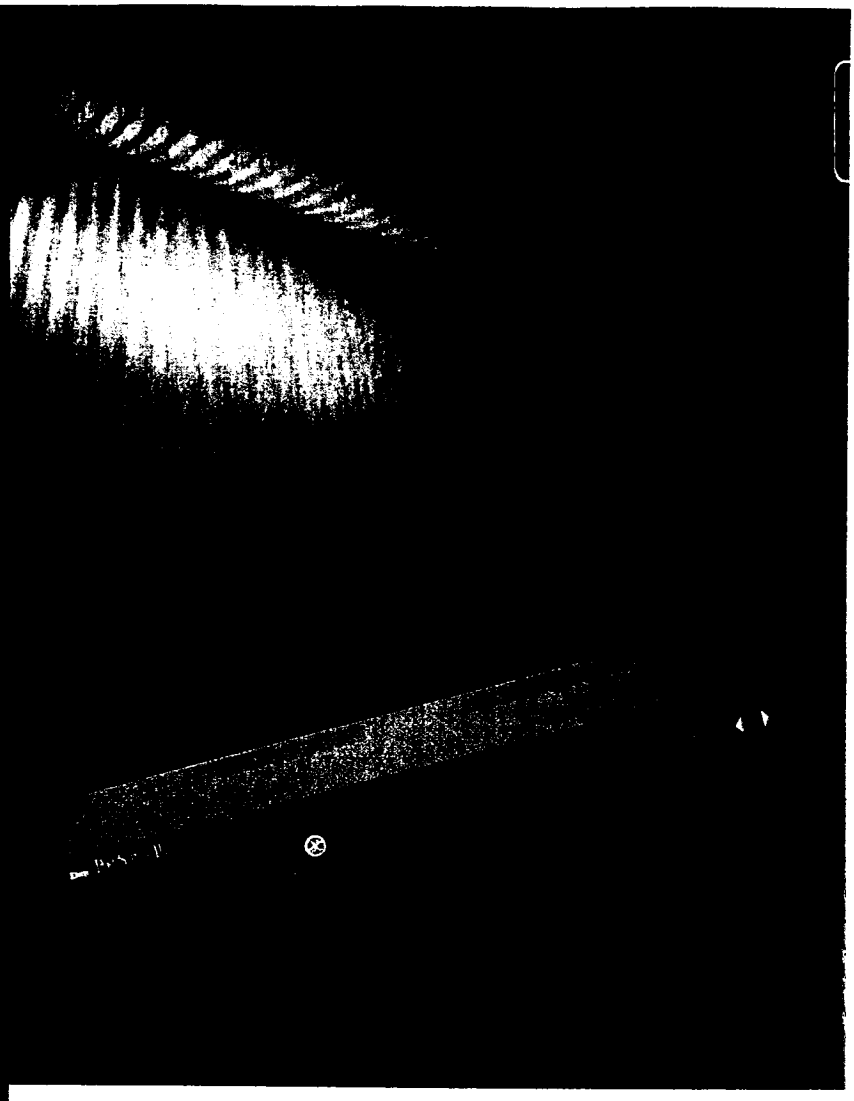
PRODUCT DATA SHEET

PortServer II



- > Expandable communications server connecting up to 64 high-speed serial ports to the network
- > Digi RealPort software provides local serial port functionality
- > Ports may be shared between multiple hosts running different operating systems
- > Supports SNMP for easy management
- > Cost-effective Frame Relay can connect remote PortServer II terminal servers to a central site

SOLARIS READY

The PortServer II high performance communications server allows you to connect clusters of high-speed serial ports to any TCP/IP Ethernet network. It suports asynchronous terminals, modems, printers and other serial devices. The PortServer II is hardware independent, allowing users to access any type of networked server supporting TCP/IP.

The PortServer II provides expandability from 16 to 64 ports, extensive network management and security features. In addition, the PortServer II supports dial-up and LAN-to-LAN connections for TCP/IP remote access to your corporate LAN or the Internet over Frame Relay and analog lines. The PortServer II is available in both desktop and rack mount versions.

The PortServer II Family gives system administrators a new level of control over serial devices. That's because Digi RealPort® software provides local serial port functionality as well as incoming and outgoing Rlogin and Telnet sessions on each port. The Digi Port Authority - Remote (DPA-Remote) is a management tool for monitoring network and serial activity from a Windows- or UNIX-based client or server. DPA-Remote provides live graphing of serial and Ethernet activity plus the ability to see signals on all ports for troubleshooting cable or flow control issues.

EXHIBIT
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Hardware Independent Expandable TCP/IP Ethernet Connectivity

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DII 00494

FEATURES

PortServer II

- 16 ports expandable to 64
- 115.2 Kbps throughput on asynchronous ports
- 56 Kbps on synchronous WAN ports
- LAN-to-LAN routing with RIP
- PPP, SLIP and CSLIP dial-up protocols
- Password access, PAP, CHAP and RADIUS security
- External logging and tracking
- Automatic IP configuration through RARP and BootP
- 19" 1U rack mount model
- Solaris Ready

CONNECTORS

PortServer II

- 10Base-T
- 10Base2

PortServer II Rack

- 10Base-T

DIGI PORT AUTHORITY REMOTE

- Remote monitoring application
- Status ports
- Status Ethernet

REALPORT SOFTWARE

- Local emulation of UNIX TTY and Microsoft COM ports
- Transparent printing under UNIX
- Single TCP/IP connection per 16 port block reduces Ethernet traffic and minimizes host CPU utilization

MODEL/PART NUMBERS

Model/Part Numbers	North America	International
Digi PortServer II 16	70000901	70000902
Digi PortServer II 16 Rack	70001755	70001756
PORTS Modules (for expansion) and accessories for PortServer II		
Digi PORTS/8em Module RJ-45	76000122	76000122
Digi PORTS/16em Module RJ-45	76000074	76000074
Digi PORTS/16em Module 422 DB-25	76000535	76000535
Digi PortServer II 16em Module Rack Mount RJ-45	76000617	76000617
Digi RJ-45/DB-25M Sync shielded cable for Frame Relay use	76000252	76000252

OPERATING SYSTEMS

- AIX
- HP-UX
- Linux
- Microsoft® Windows 2000®
- Microsoft® Windows NT®
- NCR UNIX MP-RAS
- SCO® OpenServer™
- SCO UnixWare™
- Solaris™ (Intel)
- Solaris (SPARC)

POWER REQUIREMENTS

PortServer II

- External, 110-250 VAC, 50/60 Hz

PortServer II Rack

- Internal, 110-250 VAC, 50/60 Hz

ENVIRONMENTAL

- Ambient temperature: 10°C to 55°C (50°F TO 130°F)
- Relative humidity: 5% to 90% (non-condensing)

REGULATORY APPROVALS

PortServer II and PortServer II Rack

- FCC Part 15, Class B
- EN55022, Class B
- AS3548
- EN50082-2
- EN 60950
- UL 1950
- CSA 22.2 No 950

DIGI SERVICE AND SUPPORT

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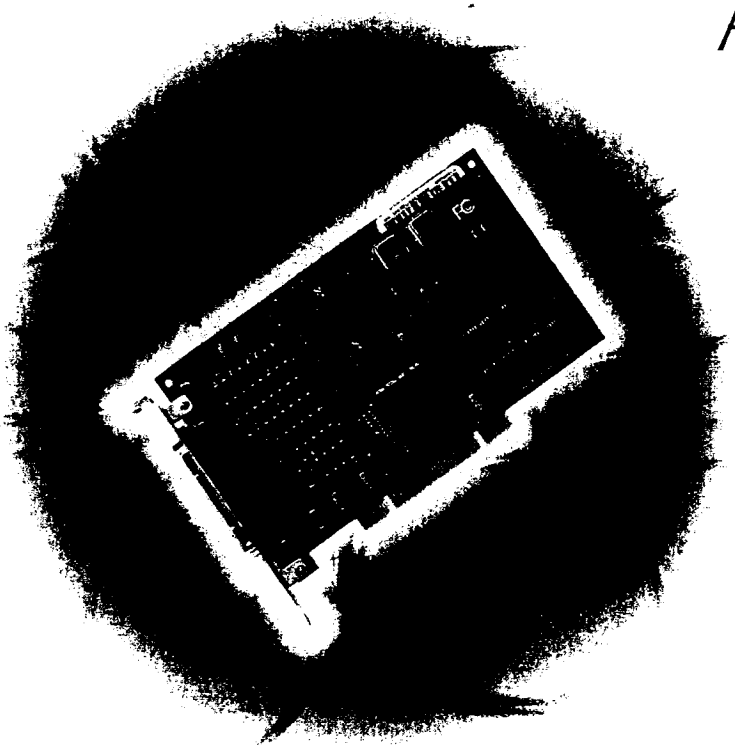
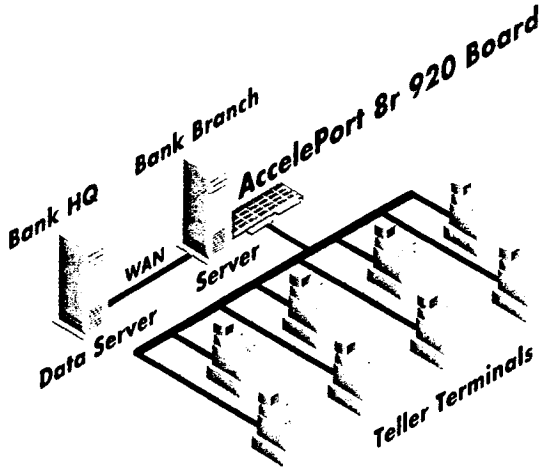
Product Data Sheet

AccelePort® Xr 920

Multiport Serial Card



The Digi AccelePort Xr 920 is designed to work with a wide range of applications by allowing a variety of parameter settings. The extra surge protection on every pin protects the board and your devices.



Features/Benefits

- **Two, four or eight serial ports, supporting data speeds up to 921.6 Kbps**
- **EIA-232 or EIA-422 connections**
- **RISC-based processor enhances overall system throughput by offloading CPU of communication bottlenecks**
- **PCI 2.2 and 2.3 compatible**
- **Full modem control and hardware and software flow control**
- **Heavy-duty surge protection on all pins for superior reliability**
- **Universal PCI bus slot supports 3.3V and 5V**

Overview

The Digi AccelePort Xr 920, one of the industry's best known multiport serial I/O cards, was designed for use in multi-user (retail point-of-sale, industrial control processing, data collection and office automation) and Remote Access Service (RAS) applications.

The AccelePort Xr 920 Family includes two-, four- and eight-port models, all with wide application flexibility and scalability. Available in PCI Universal Card (3.3V/5V), EIA-232 and EIA-422 versions, these serial cards provide an extremely wide variety of operating system support and accessories (fan-out cables and external I/O connector boxes), and an extra dose of multi-strike surge protection on each and every pin. All these elements contribute to the reasons why leading resellers and systems integrators have specified the Digi AccelePort Xr 920 Family in their designs.

An on-board 32-bit IDT RISC processor delivers high performance with speeds up to 921.6 Kbps. CPU utilization is optimized by efficiently handling serial I/O communication interrupts, character processing and data transfers. Hardware/software flow control ensures the absolute data integrity required for your most active remote access applications and "mission-critical" multi-user environments.

Digi International, the leader in Connectware, makes device networking easy by manufacturing products and technologies that are cost-effective and easy to use. With over 20 million ports shipped worldwide, Digi has been offering the highest levels of performance, flexibility, and quality since 1985.

EXHIBIT
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Making DEVICE NETWORKING easy

Features/Specifications

FEATURES

- Two-, four-, and eight-port EIA-232 models
- Four and eight-port EIA-422

All Models

- Heavy-duty surge protection on all pins
- Universal bus slot support (PCI 3.3V and 5V)
- PCI 2.2 and 2.3 compatible
- Slave design
- Hardware/software handshaking support
- 32-bit IDT RISC processor on board

AccelePort Xr 920 Models Only

- Throughput performance up to 921.6 Kbps
- 16C654 Quad UARTs
- Software configurable bus support
- Full modem control

AccelePort Xr EIA-422 Models Only

- Throughput performance up to 230 Kbps
- 16C554 Quad UARTs

POWER REQUIREMENTS

AccelePort 2r 920 - PCI

- +5 V +/-5% 350 mA typical
- +12 V +/-5% 30 mA typical
- -12 V +/-5% 50 mA typical

AccelePort 4r 920 - PCI

- +5 V +/-5% 955 mA typical
- +12 V +/-5% 40 mA typical
- -12 V +/-5% 40 mA typical

AccelePort 8r 920 - PCI

- +5 V +/-5% 960 mA typical
- +12 V +/-5% 80 mA typical
- -12 V +/-5% 80 mA typical

AccelePort 4r and 8r 422 - PCI

- +5 V +/-5% 1.0 A typical
- +12 V +/-5% 10 mA typical
- -12 V +/-5% 10 mA typical

REGULATORY APPROVALS

- FCC Part 15, Class B
- ICES 003 Class B
- EN55022, Class B
- EN50082-2
- VCCI Class B
- EN60950
- CSA 22.2 No. 950
- UL 1950

OPERATING SYSTEMS

- Microsoft Windows .NET Server 2003
- Microsoft Windows XP, 2000, NT
- Microsoft Windows 95/98/Me
- Solaris SPARC and Intel
- Novell NetWare
- HP-UX
- Linux
- OpenVMS
- OS/2
- QNX
- SCO OpenServer
- SCO UnixWare
- Tru64

Most drivers ship with product on CD-ROM. Drivers and driver updates also available on our Web-site at www.digi.com/drivers.

CONNECTORS

AccelePort Xr 920 2-port

- Two DB-9 male connectors on board

AccelePort Xr 920 (EIA-232) 4- and 8-port

- Single DB-78F connector on board
- Connector Options:
  - DB-25 fan-out cables (DTE or DCE; male or female)
  - DB-9 fan-out cables (DTE; male or female)
  - DB-25 connector box with four-foot connector cable (DTE or DCE)
  - RJ-45 connector attachment

AccelePort Xr (EIA-422) 4- and 8-port

- Single DB-78F connector on board
- Connector Options:
  - DB-25 fan-out cable (male)
  - DB-9 fan-out cable (female or male)

ENVIRONMENTAL

- Ambient Temperature: 10°C to 55°C (50°F to 131°F)
- Storage Temperature: -25°C to 85°C (-13°F to 185°F)
- Relative Humidity: 5% to 90% (non-condensing)
- Altitude: 0 to 12,000 feet (0 to 3,660 meters)
- Air Movement: 30 CFM forced

MODEL.....PART NUMBERS

Model		Worldwide Part Number
PCI EIA-232		
AccelePort 2r 920 2-port	DB-9M connectors on board	77000573
AccelePort 4r 920 4-port	cables not included, see below	77000560
AccelePort 4r 920 4-port	includes DB-25M fan-out cable	70001361
AccelePort 8r 920 8-port	cables not included, see below	77000561
AccelePort 8r 920 8-port	includes DB-25M fan-out cable	70001362
PCI EIA-422		
AccelePort 4r 4-port	includes DB-25M fan-out cable	70001193
AccelePort 4r 4-port	includes DB-9F fan-out cable	70001194
AccelePort 8r 8-port	includes DB-25M fan-out cable	70001199
AccelePort 8r 8-port	includes DB-9F fan-out cable	70001200
Accessories for EIA-232		
4-port DB-25M straight thru fan-out cable		76000008
4-port DB-9M straight thru fan-out cable		76000003
4-port DB-25M straight thru connector box with cable		76000030
4-port RJ-45 straight thru connector attachment		76000038
8-port DB-25M straight thru fan-out cable		76000021
8-port DB-9M straight thru fan-out cable		76002042
8-port DB-25M straight thru connector box with cable		76000031
8-port RJ-45 straight thru connector attachment		76000033

Other accessories are available for DCE (crossover) and female/male gender requirements. Call for information.

DIMENSIONS

Form Factor	Length	Width	Height
• Two-port PCI	9.0 in	0.5 in	4.2 in
• Four- and Eight-port PCI	6.875 in	0.5 in	4.2 in

DIGI SERVICE AND SUPPORT

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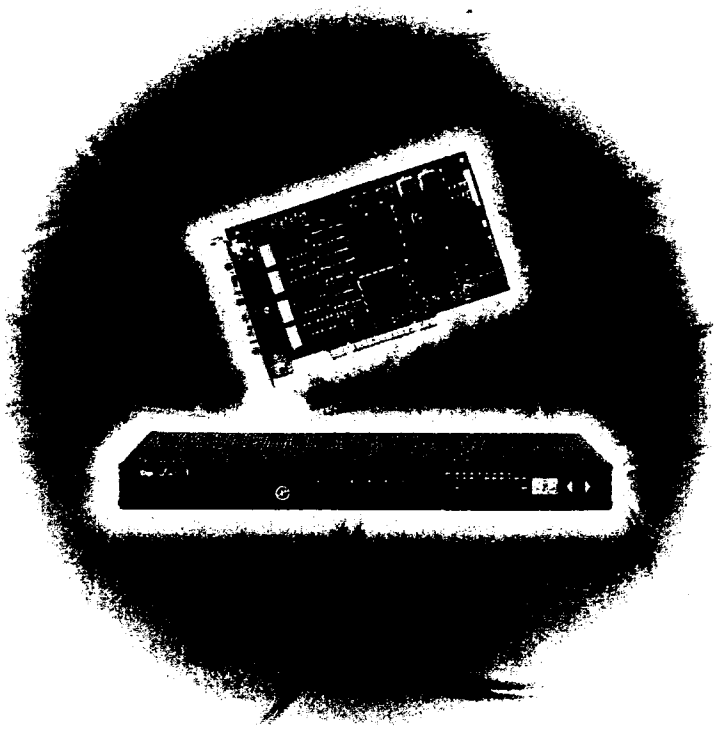
91000455 E1/103

Connectware™

DII 00497

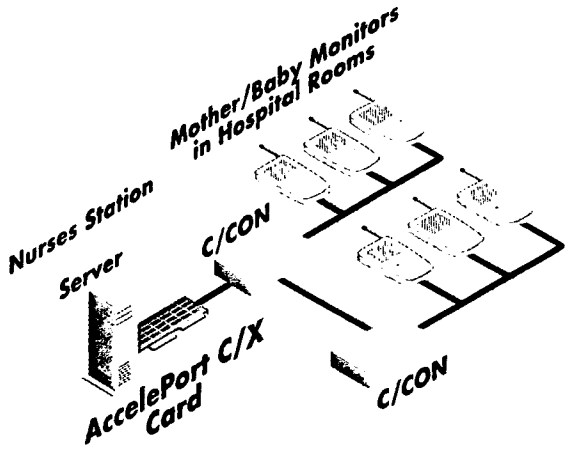
Product Data Sheet



AccelePort® C/X

Multiport Serial Cards

If you think configuring a large-scale multiport system is a complex, time-consuming process—think again. Thanks to the AccelePort® C/X asynchronous concentrator, it is fast, simple and surprisingly flexible.

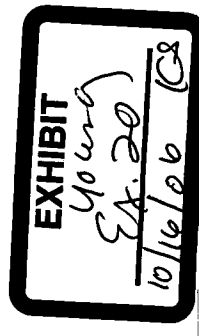


Features/Benefits

- **Supports up to 128 ports from a single slot, hundreds of ports from a single host**
- **Delivers data transmission speeds up to 115.2 Kbps**
- **Supports serial ports just about anywhere – throughout a building, across town or around the world**
- **Configure and administer ports remotely, using synchronous modems, CSUs/DSUs, ISDN terminal adapters or fractional T1s**
- **On-board processing relieves host CPU of communication bottlenecks**
- **Available for PCI 3.3V or 5V (Universal Card)**

Overview

The AccelePort C/X system supports multiuser retail Point-of-Sale (POS), office automation and data collection environments, providing a sophisticated blend of technologies, including an intelligent host adapter plus a desktop or rack mounted Digi C/CON Concentrator offering eight or 16 high-speed, surge-protected EIA-232 serial ports. System expansion is painless - just add more concentrators when you need more ports. A single AccelePort C/X host adapter, which includes a powerful on-board processor, can support up to eight C/CON Concentrators, providing up to 128 ports from a single slot on your server. And, depending on your host platform, you can install as many as eight AccelePort C/X host adapters, enabling a single host system to support hundreds of ports.



For ease of installation and optimum flexibility, the concentrators can be located up to 1,000 feet (305 meters) from the host server using standard EIA-422 cabling. A fiber optic cabling option allows you to locate your workgroups up to 1.25 miles (2 km) apart. This means that concentrators can be daisy-chained over a distance of up to 5 miles (8 km) with no loss of performance. Best of all, by using synchronous modems or multiplexer (mux), you can locate concentrators anywhere in the world and enjoy a seamless extension of your system. The perfect answer for remote office connections, these concentrators are a field-proven solution for supporting branch offices and isolated warehouses.

Digi International, the leader in Connectware, makes device networking easy by manufacturing products and technologies that are cost-effective and easy to use. With over 20 million ports shipped worldwide, Digi has been offering the highest levels of performance, flexibility, and quality since 1985.

Digi®

Connectware™

www.digi.com

Making DEVICE NETWORKING easy

Features/Specifications

FEATURES

AccelePort C/X Host Adapters

- PCI Universal Card (3.3V/5V)
- 85C30 serial communications controller, fully supported by DMA, driving two full-duplex, surge-protected EIA-422 synchronous channels
- IDT 3041 RISC processor
- Hitachi 64570 serial communications controller
- Supports up to 3.7 Mbps bi-directional transmission speeds

AccelePort C/CON Concentrators

- Eight or 16 EIA-232 asynchronous channels with RJ-45 or DB-25 connectors
- 80186 processor on board in each concentrator
- One full-duplex EIA-422 synchronous 85C30 channel with full DMA support
- Pass-through fault tolerance
- Surge protection on all EIA-232 ports
- 120 V or 240 V power supply included, 50-60 Hz (Universal)
- Desktop or 19-inch rack chassis available
- Front panel display for testing, debugging and monitoring concentrator performance

REGULATORY APPROVALS

- FCC Part 15, Class B
- ICES-003, Class B
- EN55022, Class B
- AS3548
- EN50082-2
- UL 1950
- CSA 22.2 No. 950
- EN60950

POWER REQUIREMENTS

PCI Host Adapter

- +5 V +/- 5% .90 Amps typical
- +12 V +/- 5% .01 Amps typical
- -12 V +/- 5% .01 Amps typical

AccelePort C/CON-8 and -16 Concentrators

- 120 V or 240 V Power Supply included, 50-60 Hz (Universal)

AccelePort C/CON-16 Rack

- +12 V +/- 5% .18 Amps typical
- -12 V +/- 5% .05 Amps typical

OPERATING SYSTEMS

- AIX*
- HP-UX
- Linux
- Microsoft Windows .NET Server 2003
- Microsoft Windows XP, 2000, Windows NT®
- Novell NetWare®
- OpenVMS
- OS/2
- QNX
- SCO OpenServer
- SCO UnixWare
- SUN Solaris SPARC and Intel
- Tru64 UNIX

Most drivers ship with product on CD-ROM. Drivers and driver updates available on our Website at www.digi.com/drivers
*Requires P/N 70001385

ENVIRONMENTAL

- Ambient temperature: 10°C to 55°C (50°F to 131°F)
- Relative humidity: 5% to 90%
- Altitude: 0 to 3660 meters (0 to 12,000 ft)
- Air movement: 30 CFM forced

MODEL.....PART NUMBERS

Model	North America	International
PCI Host Adapter & Concentrators		
AccelePort C/X 8 RJ-45	70001171	70001172
AccelePort C/X 8 DB-25	70001229	70001230
AccelePort C/X 16 RJ-45	70001167	70001168
AccelePort C/X 16 DB-25	70001231	70001232
AccelePort C/X 16 Rack RJ-45 (1U-19")	70001175	70001176
AccelePort C/X Host Adapter Only	77000448	77000448
Additional Concentrator Boxes		
C/CON-8 RJ-45	76000216	76000217
C/CON-8 DB-25	76000218	76000219
C/CON-16 RJ-45	76000067	76000068
C/CON-16 DB-25	76000069	76000070
C/CON-16 Rack RJ-45 (1U-19")	76000147	76000158
Optional Accessories		
Cable, host adapter to EIA-232 sync modem	76000211	76000211
Cable, EIA-232 sync modem to remote concentrator	76000212	76000212
Fiber Optic Connection Adapter	76000071	76000107
Rack Chassis (2U-19")	76000611	76000611
RS/6000 Capability Kit*	70001385	70001385

*Call Digi sales representative for AIX solutions for RS/6000 platforms

DIMENSIONS

PCI Host Adapter

- Length: 6.875 in (17.5 cm)
- Width: 0.6 in (1.5 cm)
- Height: 4.2 in (10.7 cm)
- Weight: 5.45 oz. (.15 kg)

C/CON-8 and -16 RJ45 Concentrators

- Length: 12 in (30.48 cm)
- Width: 7 in (17.8 cm)
- Height: 2.3 in (5.8 cm)
- Weight: 2.25 lbs. (1.02 kg)

C/CON-16 DB25 Concentrators

- Length: 12 in (30.48 cm)
- Width: 7 in (17.8 cm)
- Height: 4.2 in (10.7 cm)
- Weight: 4 lbs. (1.86 kg)

C/CON Rack

- Length: 17.5 in (44.45 cm)
- Width: 11.5 in (29.2 cm)
- Height: 1.75 in (4.44 cm)
- Weight: 7 lbs. (3.2 kg)

DIGI SERVICE AND SUPPORT

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Connectware™

DII 00499

PRODUCT
DATA SHEET

AccelePort EPC/X

- > Expandable, high performance system for large-scale remote access and multi-user applications
- > Supports up to 224 ports from a single slot - a thousand-plus ports from a single host
- > Delivers data transmission speeds up to 115.2 Kbps
- > Supports serial ports just about anywhere - throughout a building, across town or around the world using synchronous modems, CSU/DSUs, ISDN terminal adapters or fractional T1s
- > Accommodates extensive dial-in/dial-out connections for remote access
- > Available for PCI platforms
- > On-board processing relieves host CPU of communication bottlenecks

AccelePort EPC/X Overview

Offering the highest performing serial I/O expansion, the Digi AccelePort® EPC/X asynchronous concentrator provides the freedom to configure workgroups that serve more ports in more locations than any other solution. Available for PCI platforms, the AccelePort EPC/X Family supports up to 224 ports per slot and a thousand-plus ports per host system.

The AccelePort EPC/X Family supports multi-user and remote access environments. Each system includes an intelligent RISC-based host adapter card plus one or more EPC/CON-16 concentrators that can be daisy-chained at distances up to 1000 feet (300 meters) from the host or remotely connected via several cabling options - with no loss of performance. A fiber optic cabling option allows workgroups to be placed up to 1.25 miles (2 km) apart. Connections from the concentrators to the EIA-232 devices deliver peak speeds up to 115.2 Kbps—all the speed you need to easily support heavy, concurrent traffic on large modem banks. By using synchronous modems, concentrators can be located anywhere in the world. The administrator can enjoy a seamless remote access solution from the system while delivering "local" performance to each remote user.

In addition to supporting a wide range of platforms, the AccelePort EPC/X Family is engineered to work in concert with a broad range of Windows and UNIX-based operating environments. The AccelePort EPC/X Family supplies broad-based server solutions for remote access environments.

If you're looking for a cost-effective, scalable serial connectivity solution that doesn't compromise on performance, take a closer look at the Digi AccelePort EPC/X Family. You'll see that it's an ingenious connectivity solution that meets your needs today and allows you the freedom to easily grow in the future.

Digi®
Connectware™

EXHIBIT
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FEATURES

AccelePort EPC/X Family Host Adapters

- PCI bus adapters
- IDT 3051 RISC processor on-board
- Hitachi 64570 serial communications controller, fully supported by DMA, driving two full-duplex EIA-422 synchronous channels
- Supports a 10 Mbps bi-directional data transmission on each EIA-422 channel, two per adapter
- 2 MB of triple-ported DRAM on PCI
- Surge protection on both EIA-422 lines
- 10 Mbps transmission rate from host adapter to concentrators
- Daisy chain up to 14 Digi EPC/CON concentrators or a combination of 14 EPC/CON concentrators and PORTS/Xem modules per slot for a total of 224 ports
- Compatibility with EIA-232 or EIA-422 synchronous modems, CSU/DSUs, Frame Relay access devices, Fractional T1s and ISDN terminal adapters

Digi EPC/CON-16 Concentrators

- Sixteen EIA-232 asynchronous serial ports with RJ-45 or DB-25 connectors
- IDT 3051 RISC processor on-board
- 1 MB RAM; 256K ROM
- 10 Mbps bi-directional data transmission speed on synchronous channel
- 115.2 Kbps data transmission speeds on serial ports
- Pass-through fault-tolerance on folded ring daisy chain connections
- Supports up to three Digi PORTS modules from the AccelePort Xem product line per EPC/CON concentrator box
- Surge protection on all EIA-232 signals
- Copper wire or optional fiber optic connections
- Two LEDs provide input and output flow control information for any port you select
- Eight LEDs provide critical information on data and line status
- Reporting capabilities include Activity Display, Line Utilization, Processor Utilization, Packet Count and Error Count
- Performs diagnostics and monitors individual port activity at the workgroup level

REGULATORY APPROVALS

- FCC Part 15, Class A
- ICES-003, Class A
- EN55022, Class A
- AS3548
- EN50082-2
- UL 1950
- CSA 22.2 No. 950
- EN60950

ENVIRONMENTAL

- Ambient temperature: 50° F to 130°F (10°C °to 55°C)
- Relative humidity: 5% to 90% (non-condensing)
- *Altitude:* 0 to 12,000 ft (0 to 3,660 m)
- Air movement: 30 CFM forced

MODEL/PART NUMBERS

Model	North America	International
AccelePort EPC/X system RJ-45	70001124	70001125
AccelePort EPC/X system DB-25	70001183	70001184
AccelePort EPC/X host adapter only	77000427	70000427
Additional Concentrator Boxes		
EPC/CON-16 RJ-45	76000059	70000076
EPC/CON-16 DB-25	76000060	70000116
Options		
PORTS/8em RJ-45	76000122	70000122
PORTS/8em DB-25	76000120	70000120
PORTS/16em RJ-45	76000074	70000074
PORTS/16em DB-25	76000073	70000073
PORTS/16em 1U 19-inch Rack RJ-45	76000617	70000617
Fiber Optic Kit	76000071	70000107
19-inch Rack Chassis - 2U for RJ-45	76000611	70000611

POWER REQUIREMENTS

PCI Host Adapter

- +5 V +/- 5% 1.5 Amps typical
- +12 V +/- 5% 1.5 Amps typical
- -12 V +/- 5% 1.5 Amps typical

AccelePort EPC/CON-16 Concentrators

- 120 V - 240 V power supply included, 50-60 Hz (Universal)

DIMENSIONS

PCI Host Adapter

- Length: 6.875 in (17.5 cm)
- Depth: 0.6 in (1.5 cm)
- Width: 4.2 in (10.7 cm)
- Weight: 12 oz (0.34 kg)

EPC/CON-16 RJ45

- Length: 12.0 in (30.48 cm)
- Depth: 2.42 in (6.15 cm)
- Width: 7.0 in (17.78 cm)

EPC/CON-16 DB25

- Length: 12.0 in (30.48 cm)
- Depth: 4.5 in (11.4 cm)
- Width: 7.0 in (17.78 cm)

PC SERVER REQUIREMENTS

- One PCI 32-bit slot

OPERATING SYSTEMS

- Compaq OpenVMS & Tru64 UNIX
- HP-UX*
- Linux*
- Microsoft Windows 2000, Windows XP & Windows NT*
- NCR UNIX MP-RAS
- Novell NetWare*
- OS/2
- SCO OpenServer™*
- SCO UnixWare™*
- Sun Solaris® x86*
- Sun Solaris SPARC*

* Drivers ship with product on CD-ROM.
For an updated list of software support via Digi and Third Party vendors, please contact your Digi sales representative or visit Digi's web site at www.digi.com/drivers.

DIGI SERVICE AND SUPPORT

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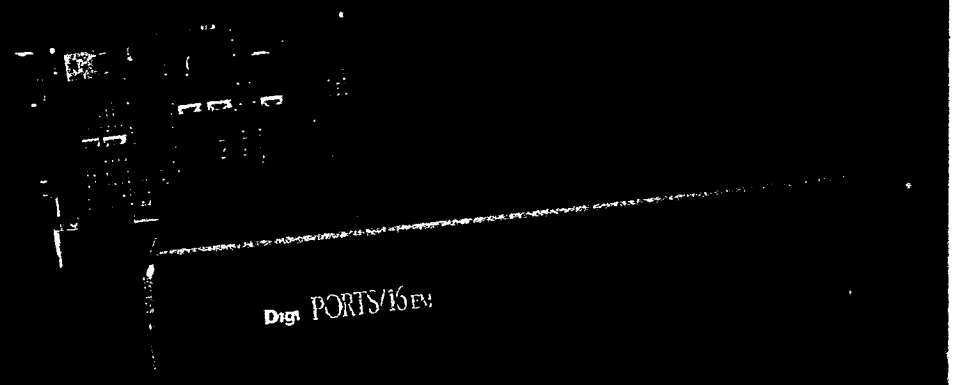
PRODUCT
DATA SHEET

AccelePort Xem



- > Expandable up to 64 ports from a single host slot
- > Eight- and 16-port concentrator boxes provide incremental expansion
- > Delivers data speeds up to 115.2 Kbps
- > Available for PCI and ISA platforms
- > EIA-232 and EIA-422 solutions
- > Ideal for connecting modems, terminals, printers, instruments and other serial devices
- > High-speed dial-in/ dial-out remote I/O connections for remote access systems when configured with external modems
- > 1U 19-inch rack mount 16-port version

EXHIBIT
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AccelePort Xem Overview

If your business is looking to reap all the benefits of high-performance workgroup computing at the lowest price per port, look no further than the AccelePort® Xem system.

The AccelePort Xem asynchronous system is an expandable, modular and intelligent serial communication solution designed specifically for small to mid-size multi-user installations. The system is especially well-suited for applications that are expected to start small and grow over time - to as many as 64 ports.

This flexible system lets you connect up to 64 high-speed EIA-232 or EIA-422 serial ports to a PCI- or ISA-based system. The result is a fast, reliable way to connect terminals, printers, modems, instruments and other serial peripherals, making it ideally suited to applications such as data acquisition, office/factory automation and industrial process control.

The AccelePort Xem system features a host adapter card with an on-board RISC-based processor that delivers up to 115.2 Kbps performance. The system also includes a compact Digi PORTS module that provides access to eight or 16 serial ports.

The AccelePort Xem works with a wide array of popular operating systems (see page 2). The AccelePort Xem Family features the same quality, reliability and after-sales technical support that have made Digi the leader in serial connectivity, with over 20 million ports shipped. It's easy to see why the Digi AccelePort Xem system is the choice of leading solution providers who are looking for flexibility with an affordable cost per port.

Digi® Connectware

FEATURES

AccelePort Xem Host Card

- Supports both PCI and ISA platforms
- Supports data transfer rates up to 115.2 Kbps
- One host card supports up to four Digi PORTS modules for a maximum of 64 ports. An auxiliary power supply package (PN 76000109 in North America or 76000321 for International) is required when using more than two PORTS modules.
- On-board IDT 3051 RISC processor with its patented Front End Processor/Operating System (FEP/OS)
- Female HD44 connector to connect the first Digi PORTS module via a 5-foot (1.5 m) cable

Digi PORTS Modules

- PORTS modules are interchangeable between ISA and PCI platforms
- Eight or 16 EIA-232 asynchronous serial ports: PORTS/8em or PORTS/16em, RJ-45 or DB-25
- 1U 19-inch Rack Mount PORTS/16em for EIA-232; two PORTS/Xem units can be driven off of a Xem host card or three from a PortServer II
- 16 EIA-422 asynchronous serial ports; PORTS/16em EIA-422 DB-25
- 115.2 Kbps performance capabilities
- Can also connect to other Digi EBI products including EPC/CON concentrators, PortServer II and MODEM/Xem
- External Bus Interface (EBI) technology uses HD44 female connectors on the PORTS Modules to daisy-chain additional ports via a 16-inch (40.6 cm) cable
- Surge protection on all EIA-232 and EIA-422 signals
- Supports full modem control and full hardware handshaking (CTS, RTS, DSR, DTR and DCD) on all channels

REGULATORY APPROVALS

- FCC Part 15, Class B
- ICES-003 Class B
- EN55022, Class B
- EN50082-2
- UL 1950
- CSA 22.2 No 950
- EN60950

OPERATING SYSTEMS

- AIX*
- Compaq Tru64 UNIX
- Compaq OpenVMS
- HP-UX*
- Microsoft Windows 95/98, Windows Millenium Edition*
- Microsoft Windows 2000*
- Microsoft Windows XP*
- Microsoft Windows NT*
- Linux*
- Novell NetWare*
- OS/2
- QNX
- SCO OpenServer*
- SCO UnixWare*
- Solaris™ SPARC*
- Solaris Intel*

* Drivers ship with product on CD-ROM. For driver updates, visit Digi's web site at www.digi.com/drivers

MODEL/PART NUMBERS

EIA-232 Solutions (Kit includes card, 5' EBI cable and PORTS module)	Part Numbers
AccelePort 8em-PCI RJ-45	70001206
AccelePort 8em-PCI DB-25	70001208
AccelePort 16em-PCI RJ-45	70001201
AccelePort 16em-PCI DB-25	70001203
AccelePort 8em-ISA RJ-45	70000810
AccelePort 8em-ISA DB-25	70000838
AccelePort 16em-ISA RJ-45	70000692
AccelePort 16em-ISA DB-25	70000749
AccelePort 16em-PCI RJ-45 Rack (1U 19-inch Rack)	70001757
EIA-422 Solutions (Kit includes card, 5' EBI cable and PORTS module)	
AccelePort 16em-PCI EIA-422 DB-25	70001559
AccelePort 16em-ISA EIA-422 DB-25	70001558
Optional Accessories	
19" Rack Mount Chassis	76000611
24" Cable RJ-45 to DB-25M (One adapter cable needed per port)	76000129
48" Cable RJ-45 to DB-25M (One adapter cable needed per port)	76000195
24" Cable RJ-45 to DB-9M (One adapter cable needed per port)	76000239
48" Cable RJ-45 to DB-9M (One adapter cable needed per port)	76000240
PORTS/8em module DB-25[1]	76000120
PORTS/8em module RJ-45[1]	76000122
PORTS/16em module DB-25[1]	76000073
PORTS/16em module RJ-45[1]	76000074
PORTS/16em Rack RJ-45[1] (1U 19-inch Rack)	76000617
PORTS/16em module EIA-422 DB-25[1] (NA Version ships w/power supply & power cord)	76000535
PORTS/16em module EIA-422 DB-25 (International Version - ships with external 43 W, 100-250 V 50/60 Hz power supply)[1]	76000548
Xem 120 V Power Supply Package	76000109
Xem International Power Supply Package	76000321

[1]16" daisy chain cable included

SYSTEM REQUIREMENTS

ISA

- One full-length 16-bit slot
- 32 K unused memory address space for static RAM
- One unused I/O port address

PCI

- One full-length 32-bit slot

ENVIRONMENTAL

- Ambient temperature: 50°F to 131°F (10°C to 55°C)
- Relative humidity: 5% to 90% (non-condensing)
- Altitude: 0 to 12,000 feet (0 to 3,600 meters)
- Air movement: 30 CFM forced

POWER REQUIREMENTS

PCI Host Card

- +5 V +/-5% 0.43 Amps typical, plus module power drain

ISA Host Card

- +5 V +/-5% 1.75 Amps typical, plus module power drain

DIGI SERVICE AND SUPPORT

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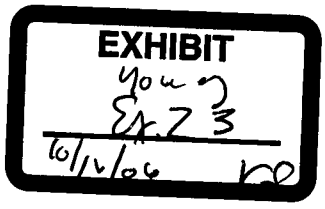
D1/1001

PRODUCT DATA SHEET

AccelePort RAS Adapters

- > High-speed multi-modem adapter
- > Advanced DSPs
- > Supports analog speeds to 56 Kbps/V.90
- > Designed for Remote Access solutions
- > Enhanced fax application support
- > Wide O/S and third-party application support
- > Five-year warranty



As the communication needs of businesses grow, so does the need for dial-in and dial-out services for the users, but without the expense and overhead of stand-alone proprietary boxes. Standard open-systems PC servers equipped with Digi's AccelePort RAS adapters are beginning to take on unified communications tasks for businesses of all sizes by efficiently handling remote communications and performing as Internet and fax gateways for dial-in users. Essential to server-based communications solutions are reliable, standards-based communications adapters. Digi International, maker of the industry-standard DigiBoard, has been producing industry leading communications adapters since PC servers first began shipping. Through long-standing partnerships and joint development efforts with industry leaders such as Compaq, IBM, Microsoft, Novell and many Linux distribution companies, Digi products have gained a reputation for compatibility, performance and reliability that is unmatched in the industry. Digi's AccelePort family of technologically advanced RAS (Remote Access Services) multi-modem adapters provides the widest compatibility and most powerful performance available in a PCI slot. For demanding, server-based applications including modem pooling, remote access, advanced fax, World Wide Web and branch office gateways, you won't find a better product line than Digi's AccelePort RAS.

High Speed Multi-Modem Adapters Support Four or Eight Channels

AccelePort RAS multi-modem adapters integrate high density analog modems supporting four or eight channels in a single PCI slot. Multiple AccelePort adapters can be installed in a single server so capability can be added as system needs grow.

Advanced DSPs Support V.90 Modem and Advanced Fax Communications

The dense modem technology built into the AccelePort RAS adapters is based on industry-standard Digital Signal Processors (DSPs). On-board DSPs provide advanced modem and fax support and maximize the efficiency of each communications channel. Each AccelePort channel operates independently and supports the widest range of analog clients for complete and accurate call completion at the highest data rate possible.

Universal Server Compliance Ensures Compatibility with All Leading PCs

All AccelePort RAS models support 3.3- or 5-volt PCI servers, and share a common software architecture. These features make AccelePort RAS adapters compatible with a wide variety of PCs and application software, offer enhanced reliability, and facilitate easy support. AccelePort RAS DSP-based adapters also share a common software architecture with Digi DataFire RAS DSP-based digital adapters for flexibility in system design.

Software Upgradeable to Protect Your Investment

The great advantage of Digi AccelePort server-based solutions is the ability to grow and expand as your needs change, whereas standalone communications solutions must be replaced in order to accommodate system changes. It's as easy as adding additional AccelePort adapters to your server. And, adapters can easily be upgraded or swapped in and out of the server as technology changes. Software upgradeable DSPs ensure your system won't be outdated. As technology improves, you can upgrade your modems via a simple software download. AccelePort provides complete system design flexibility.

O/S Integration and Use of Standard APIs Facilitate System Installation and Maintenance

AccelePort adapters integrate with, and take advantage of, the inherent communication capabilities already built into your server operating environment. And, unlike some competitive products that use proprietary APIs (application programming interfaces), AccelePort drivers are written using standard APIs. Use of standard APIs means installation and management of your ports is completely familiar and intuitive to network administrators. IT managers can continue to use the same management systems and administrative tools they know and trust. And, users can continue to use the same remote access resources they're accustomed to since the AccelePort family of RAS multi-modem adapters offers full modem coverage. The AccelePort product line is a natural extension of your existing network and does not require administrator or user training, or a substantial investment to add features such as remote access or fax connectivity.

Advanced Application Support for Freedom of Choice

Software products for communication applications, management, and performance enhancement are available from a wide variety of developers. AccelePort adapters are designed and tested to ensure compatibility with leading application software. Up-to-date compatibility testing information can be found on Digi's web site: www.digi.com under "Industry Alliances".

Quality and Reliability

AccelePort RAS adapters meet Digi International stringent design and manufacturing standards including ISO 9001 certification, and are backed by a five-year warranty. AccelePort RAS adapters are designed to be the only communications adapter you'll ever need.

GENERAL SPECIFICATIONS

Port Density
> Four or eight analog modems per slot

Modem Type
> Digital Signal Processor (DSP)

Bus Type
> 32-bit PCI
> Bus Master Design
> Universal 3.3 V and 5.0 V support

Connector
> Four or eight RJ-11 modular connectors

FAX COMMAND SET STANDARDS

> FAX class 1
> FAX class 2
> FAX class 2.0
> Class 2.0 Error Correction Mode
> FAX Compressions Formats: All optional class 2.0 data format conversions are supported including:
  > Normal Image
  > Fine Image
  > MH (1D) Image Conversion
  > MR (2D) Image Conversion
  > MMR Image Conversion
> Copy Quality Checking and Receive Quality Thresholds
> Adaptive Answering
> Automatic Page Header Generation (TSI Banner)
> Distinctive Ring
> IS-101 Voice Command Set

INTERNET TELEPHONY

> DTMF generation and detection
> Call Progress detection
> Caller ID*

MODEM STANDARDS COMPATIBILITY

Data Modes
> ITU V.90 standard
> K56flex
> ITU-T V.34: 33,600-2400
> ITU-T V.32 bis: 14,400, 12000, 7200
> ITU-T V.32: 9600, 4800
> ITU-T V.24 bis
> ITU-T V.23: 600/75, 1200/75
> ITU-T V.22bis: 2400
> ITU-T V.22: 1200
> ITU-T V.21: 300
> Bell 212a: 1200
> Bell 103: 300

Compression
> V.42 bis
> MNP Class 2, 4, and 5

Error Correction
> V.42

Fax Modes
> Group 3
> ITU-T V.17: 14,400
> ITU-T V.29: 9600
> ITU-T V.27 ter: 4800
> ITU-T V.21 channel 2: 300

BUS CAPACITY

Unlimited AccelePort RAS DSP-based adapters and/or DataFire RAS DSP-based adapters can work together in the same server. Practical limitations are dependent on the capability of the server platform.

RAS FAMILY API

All of the Digi RAS products conform to the same, highly flexible, well documented API. With this API, developers can write drivers to proprietary operating systems, or to standard operating systems with proprietary extensions.

MECHANICAL

AccelePort RAS 4, 8
> Length: 12.2 in. (31.2 cm)
> Width: 4.2 in. (10.7 cm)

POWER REQUIREMENTS

AccelePort RAS 4
> 7.5mA @ 5v and 100mA @ 12v

AccelePort RAS 8
> 1.3A @ 5v and 180A @ 12v

* Software upgrade

OPERATING SYSTEM SUPPORT

IBM
> AIX 4.2.1

Linux

Microsoft
> Windows NT 4.0
> Windows 2000

Novell
> NetWare 4.2x
> NetWare 5x

SCO
> UnixWare 7 SVR5
> OpenServer

ENVIRONMENTAL

> Ambient Temperature: -10°C to 60°C (22°F to 132°F)
> Relative Humidity: 5% to 90%, non-condensing
> Air Movement: 30 CFM Forced
> Altitude: 0 to 12,000 feet (3657.6 m)

REGULATORY APPROVALS

Emissions
> USA: FCC Part 15, Subpart J, Class B
> Canada: ICES 003
> Europe: EN55022, EN50082
> VCCI
> AS3548
> EN50082

Safety
> USA: UL Recognized, UL 1950
> Canada: CSA Certified, CSA C22.2 No. 950
> Europe: EN60950
> CE mark

Telecom
> USA: FCC Part 68
> Canada: CS03
> Europe: I-CTR21

DIGI SERVICE AND SUPPORT

You can purchase with confidence knowing that Digi is here to support you with expert technical support, a strong five-year warranty and a 30-day money-back guarantee.

MODEL/PART NUMBERS

AccelePort RAS 4:	
AccelePort RAS 4 (USA & Canada)	# 77000616
AccelePort RAS 4 (Europe, except Germany & Switzerland)	# 77000617
AccelePort RAS 4 (Germany)	# 77000618
AccelePort RAS 4 (Australia, New Zealand, Switzerland)	# 77000619
AccelePort RAS 4 (Latin America)	# 77000775
AccelePort RAS 4 (Asia)	# 77000776
AccelePort RAS 4 (Israel, Hungary)	# 77000777
AccelePort RAS 8:	
AccelePort RAS 8 (USA & Canada)	# 77000583
AccelePort RAS 8 (Europe, except Germany & Switzerland)	# 77000584
AccelePort RAS 8 (Germany)	# 77000585
AccelePort RAS 8 (Australia, New Zealand, Switzerland)	# 77000586
AccelePort RAS 8 (Latin America)	# 77000772
AccelePort RAS 8 (Asia)	# 77000773
AccelePort RAS 8 (Israel, Hungary)	# 77000774

See www.digi.com for current list of certified countries.

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http://www.digi.com

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(+49) 231-97-47-0

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DII 00507

PRODUCT
DATA SHEET

Digi Neo

- > Four or eight port EIA-232 solutions on PCI platform
- > Smallest form factor in industry
- > Surge suppression
- > Enhanced monitoring/ diagnostic tool
- > Windows, UNIX and Linux drivers
- > Extensive cabling/connector options for DB-25, RJ-45 and DB-9 connections

EXHIBIT
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10/16/06 K.S

Digi Neo Overview

The Digi Neo™ is the latest addition to Digi's family of intelligent multiport serial cards. The unique half-height size of the Digi Neo makes it the smallest form factor serial card solution on the market today.

The Digi Neo leverages an Application Specific Integrated Circuit (ASIC) to provide throughput speeds exceeding 460.8 Kbps, large buffers for data transfer, and baud rate customization. These features, along with surge suppression and the availability of drivers for all the most popular operating systems, make the Digi Neo ideal for point-of sale, industrial automation, factory control, kiosks, and data collection applications.

The extensive cabling options of the Digi Neo (RJ-45, DB-9, DB-25) set a new standard for ease-of-installation and connector reliability while delivering the only solution for tighter workspaces and specialized server/PC environments.

The Digi Neo provides an enhanced software monitoring and diagnostic tool for Windows® operating systems. A similar tool for Unix and Linux operating systems also supports the Digi Neo.

With over 15 million ports shipped, Digi is the leader in Connectware, wired and wireless, hardware and software connectivity solutions that business use to create, customize and control retail operation, industrial automation, and other applications. Connectware network-enables the essential devices that build business. Let us show you how the Digi Neo can give your business a competitive advantage by seamlessly network-enabling the essential devices that drive your business.

Digi®
Connectware™

FEATURES

- Four or eight port EIA-232 solution on PCI platform
- Half height card makes it the smallest form factor in industry
- Surge suppression
- Throughput exceeding 460.8 Kbps
- Enhanced monitoring/diagnostic configuration tool
- Windows, UNIX and Linux drivers
- Extensive cabling/connector options for DB-25, RJ-45 and DB-9
- Full modem control
- Hardware or software flow control
- Low latency
- Custom baud rates

CONNECTORS

Digi Neo 4 and 8

- Single HD-68 female connector
- Connector options:
  - DB-25 and DB-9 four-foot fan-out cables
  - DB-25 connector box with HD-68M six-foot connector cable
  - RJ-45 connector box with HD-68M six-foot connector cable
  - DB-9 connector box with HD-68M six-foot connector cable
  - HD-68M to DB-78F converter to use legacy connector options

REGULATORY APPROVALS

- Electromagnetic Emissions:
  - FCC Part 15, Class B
  - EN55022, Class B
  - VCCI Class B
  - ICES-003, Class B
  - AS3548
- Electromagnetic Immunity:
  - EN55024
- Safety:
  - EN60950
  - UL 1950
  - CSA 22.2, No. 950
  - AS3260

DIMENSIONS

Four or eight port

- Length: 4.86 in (12.34 cm)
- Width: 0.325 in (0.83 cm)
- Height: 2.45 in (6.22 cm)
- Weight: 1.41 oz. (40 grams)

MODEL/PART NUMBERS

Model	Part Number
PCI EIA-232	
Digi Neo 4 port (cables not included, see below)	77000819
Digi Neo 4 port (includes DB-25M fan-out cable)	70001731
Digi Neo 8 port (cables not included, see below)	77000820
Digi Neo 8 port (includes DB-25M fan-out cable)	70001732
Available Accessories	
4 port DB-25M DTE fan-out cable	76000522
4 port DB-9M DTE fan-out cable	76000528
4 port DB-25F DTE fan-out cable	76000532
4 port DB-9F DTE fan-out cable	76000530
4 port DB-25M DTE connector box with cable	76000524
4 port DB-9M DTE connector box with cable	76000560
4 port RJ-45 DTE connector box with cable	76000526
8 port DB-25M DTE fan-out cable	76000523
8 port DB-9M DTE fan-out cable	76000529
8 port DB-25F DTE fan-out cable	76000533
8 port DB-9F DTE fan-out cable	76000531
8 port DB-25M DTE connector box with cable	76000525
8 port DB-9M DTE connector box with cable	76000561
8 port RJ-45 DTE connector box with cable	76000527
10-foot HD-68M cable (use when additional length is required)	76000559
HD-68M to DB-78F converter (use with legacy accessories)	76000534

SYSTEM REQUIREMENTS

- One 32-bit slot
- IRQ is assigned

ENVIRONMENTAL

- Ambient temperature: 50° F to 131° F (10° C to 55° C)
- Relative Humidity: 5% to 90%
- Altitude: 0 to 8,000 feet (0 to 2438 meters)
- Air movement: 30 CFM forced

OPERATING SYSTEMS

- Microsoft® Windows XP
- Microsoft® Windows 2000
- Microsoft® Windows NT
- Microsoft® Windows 95/98/Me
- Linux
- SCO® OpenServer

Most drivers ship with product on CD-ROM. Drivers and driver updates also available on our Website at www.digi.com/drivers.

POWER REQUIREMENTS

Digi Neo 4 and 8 port

- +5V +/- 5%, 20mA typical, 100mA maximum
- +12V +/- 5%, 100mA typical, 150mA maximum

DIGI SERVICE AND SUPPORT

You can purchase with confidence knowing that Digi is here to support you with expert technical support, a strong five-year warranty and a 30-day money-back guarantee.

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cust_serv@digi.com

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Connectware™

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DII 00509

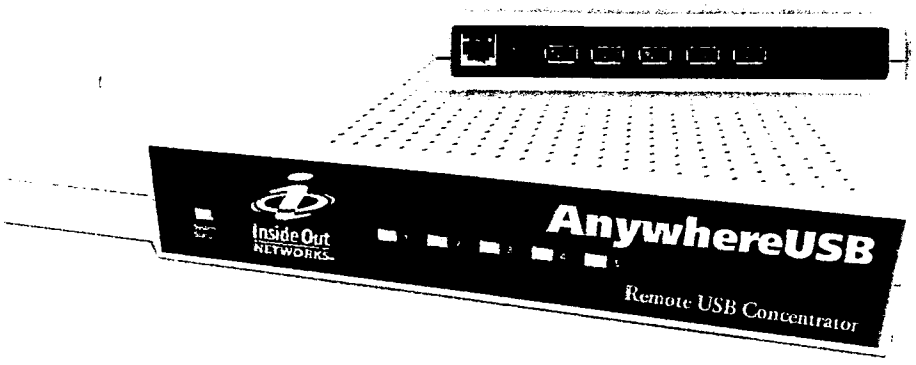
Preliminary Specs

USB OVER IP™

AnywhereUSB

Inside Out NETWORKS

Digi Connectware™



EXHIBIT
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Remote USB Over IP Concentrator

AnywhereUSB is the first remote networking solution to utilize USB Over IP technology, combining the ease of installation, performance, and reliability of USB with the convenience of remote networking. This revolutionary solution allows the connection of USB devices anywhere on an existing wired or wireless LAN – without a locally attached host for each remote peripheral device. USB devices such as cameras and printers can be connected directly to the LAN and controlled from a remote server or PC, increasing security and allowing peripherals to operate in harsh environments, while also allowing system redundancy – if the host fails locally or remotely, another host can take over. AnywhereUSB also lowers a company's total cost of ownership by eliminating locally attached hosts and expensive Ethernet-attached peripheral devices, making it an ideal solution for enterprise applications such as surveillance, kiosks, point-of-sale, and industrial automation.

Remote Host USB Device Connectivity for Enterprise Applications

- Leverages existing wired or wireless Ethernet network to remotely attach USB devices to any host PC on the LAN – without distance limitations
- Encapsulated USB over IP breaks the traditional five meter USB cable distance barrier, allowing remote users to experience the ease and reliability of USB
- Enables centralized monitoring of remote USB devices
- Saves space and power on the peripheral side – no PC is required – while increasing reliability and redundancy
- Ideal for mission-critical applications such as surveillance, kiosk, point-of-sale, and industrial automation
- One concentrator connects up to five USB devices

Get of the box today.

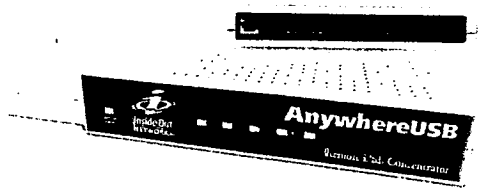
DII 00510

AnywhereUSB

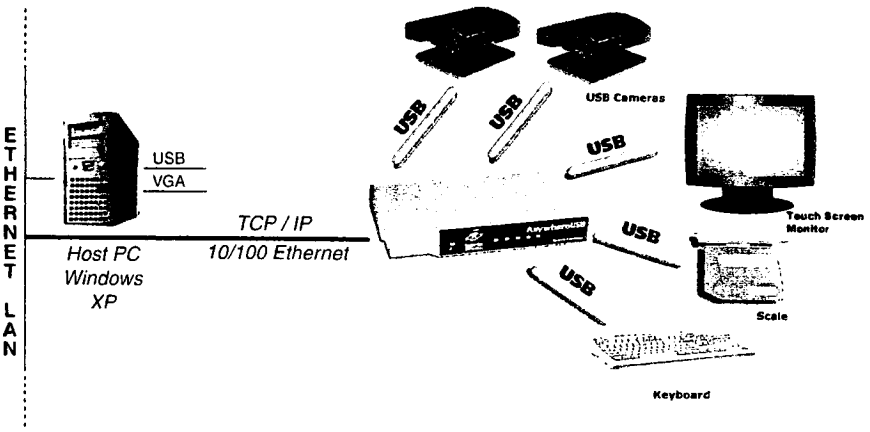
AnywhereUSB Product and Part Number

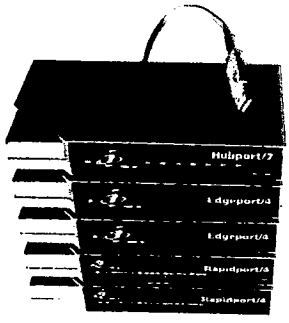
AnywhereUSB DOMESTIC MODEL		
NAME	DESCRIPTION	PART #
AnywhereUSB/5	5-port USB Concentrator	301-1130-01

AnywhereUSB INTERNATIONAL MODEL		
NAME	DESCRIPTION	PART #
AnywhereUSB/5	5-port USB Concentrator	301-2130-01



Point-of-Sale





To view our entire line of USB solutions visit our website at www.ionetworks.com

AnywhereUSB Technical Features and Specifications

FEATURES

Supports data rates up to 12 Mbps for USB device attachments
500mA downstream power per device
Individual port power management
USB 1.1 compatible
No additional IRQ or memory address requirements
Plug-and-play compliant; hot-swappable

SYSTEM REQUIREMENTS

Supported OS: Windows 2000, XP, NT 4.0*
1 available Ethernet port

* Requires Inside Out Networks NT 4.0 USB stack running on host PC

POWER REQUIREMENTS

Ships with 5VDC power supply with input voltage requirement of 120VAC, 60Hz (domestic) or 230VAC, 50Hz (international)

ENVIRONMENTAL REQUIREMENTS

Ambient temperature: 32°-104°F (0°-40°C)
Relative humidity: 0-95% non-condensing

DIMENSIONS

Length: 4.35 in (11.05 cm)
Height: 1.03 in (2.61 cm)
Width: 7.2 in (18.29 cm)
Weight: 10 oz (283.49 g)

CERTIFICATION AND SAFETY

FCC Part 15, Class B
CE Certified
EN 55022
EN 55024
EN 60950
UL 1950
CSA 22.2 No. 950
IEC-950

DII 00511

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Austin, Texas 78746

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Digi Web: www.digi.com; Digi e-mail: info@digi.com

Inside Out NETWORKS.

Digi Connectware™

Microsoft® Windows® Embedded Partner

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Edgeport/1

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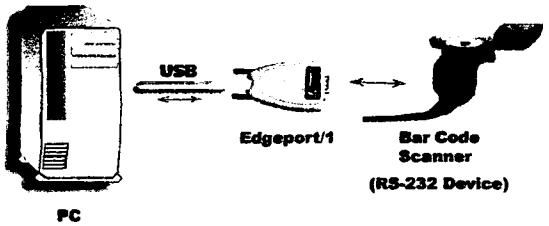
Bump-in-the-Cable Solution for Serial Port Expansion

The Edgeport/1 USB-to-serial converter is the newest member of the Edgeport family of enterprise Universal Serial Port (USB) connectivity solutions. One-sixth the size of our Edgeport/2, this single port solution is merely a bump in the cable, yet it has the same reliability, performance and operating system support that Edgeport users have come to expect. Simply plug the Edgeport/1 into the USB port of a desktop PC, laptop, or thin client and gain one high-speed RS-232 DB-9 serial port. Attaching PDAs, printers, bar code scanners, and other peripheral devices has never been easier! The Edgeport/1 is perfect for mission-critical applications such as point-of-sale and mobile computing in which space is limited and flexible I/O expansion is required.

Point-of-Sale



Proven Performance for the Enterprise User

- Same reliability, performance, and no-hassle installation of our flagship Edgeport USB expansion boxes
- Operating system support for Windows®95, 2000, NT 4.0, XP, and more
- Lower cost per port than serial boards; external solution allows use of a smaller, lower cost PC
- Small form factor is easy to transport and takes up virtually no space – weighs less than 2 oz / 57 g
- Jack screws keep your serial device securely in place
- Eliminates long cables between the peripheral device and computer
- Bulk pricing available for large installations and OEM opportunities

Get **of the box** *today.*

DII 00512

Edgeport/1 Products and Part Numbers

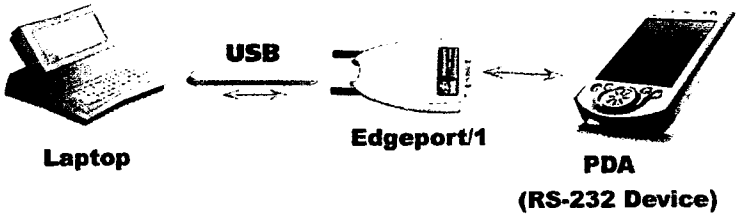
EDGEPORT/1 MODELS		
NAME	DESCRIPTION	PART #
Edgeport/1	1 RS-232 serial DB-9	301-1001-11

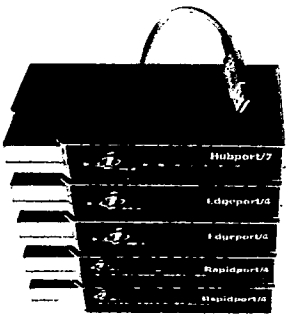
EDGEPORT/1 BULK PACKS		
NAME	DESCRIPTION	PART #
25-Unit Bulk Pack	25 Edgeport/1 units	301-1001-21
100-Unit Bulk Pack	100 Edgeport/1units	301-1001-22

Each Edgeport/1 ships with detachable 1 meter USB cable.

Bulk Packs include one copy of software, documentation, and limited use software and documentation reproduction license.

Mobile Computing





To view our entire line of USB solutions visit our website at www.ionetworks.com

Edgeport/1 Technical Features and Specifications

FEATURES

Baud rate: Up to 230Kbps
Configurable COM port assignment
Unit maintains COM port assignments across reboots
USB 1.0, 1.1 and 2.0 compliant
Plug-and-play compliant; hot-swappable
Full hardware and software flow control support
UART: 128-byte buffer per direction
User diagnostics
Easy configuration
Status reporting
No additional IRQ or I/O port requirements

DIMENSIONS

Length: 3.15 in (8.0 cm)
Height: 0.80 in (2.03 cm)
Width: 1.75 in (4.44 cm)
Weight: 1.6 oz (45.36 g)

SYSTEM REQUIREMENTS

Windows 95 (OSR2), 98, SE, 2000, Me, CE, XP, XP Embedded, NT 4.0, NT Embedded; Linux
1 USB type A (downstream) port

POWER REQUIREMENTS

No external power supply needed (USB-powered)

ENVIRONMENTAL REQUIREMENTS

Ambient temperature: 32°-149°F (0°-65°C)
Relative humidity: 0-95% non-condensing

CERTIFICATION AND SAFETY

FCC Part 15 Class B
CE Certified
EN55022, Class B
EN55024
EN60950
UL 1950
CSA No. 950

DII 00513

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News: Rabbit Semiconductor®, Inc. Launches Zigbee™ / 802.15.4 Application Kit for Low-Cost, ... More news

Register for live webinar: Bridging Your "Islands of Automation" the Digi Way

Nov 15th, 11:00 am (CST)

Register ▶

Test drive the Digi Passport today using our online demo

RoHS compliance: Learn about Digi's quality and environment policies

When Reliability Matters

Digi International is the leader in device networking for business. We develop reliable products and technologies that enable you to connect and securely manage local or remote electronic devices over the network or via the web.

Which Digi products are right for you?

- Cellular Gateways
- Wi-Fi Device Servers
- Video/Sensors
- Zero-Clients
- USB
- Console Servers
- Serial Servers
- Serial Cards
- Embedded Solutions

Find out how Digi solutions are used in real-world applications:

- Remote Device Management
- Data Center Management
- Medical/Healthcare
- Retail/POS
- Building Automation & Security
- Traffic Management
- Utilities
- Industrial Automation
- Government

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Applications
Remote Device Management
Medical/Healthcare
Retail/POS
Overview
Product Applications
News
Building Automation & Security
Traffic Management
Utilities
Industrial Automation
Government

Retail/POS

We offer an extensive range of connectivity solutions for retail applications.

Overview | Product Applications | News

View product applications ▶

Digi technology is used in thousands of enterprise applications worldwide, with particular success in the retail/Point-of-Sale (POS) market space. Whether you own a single gas station or a nationwide chain of department stores, we can provide the tools you need to reliably network your devices so you can focus on running your business.

- Easily connect and network-enable bar-code scanners, receipt printers, scales, cash registers, credit card readers or any type of POS peripheral device
- Upgrade retail stations using existing application software and peripheral devices
- Manage inventory and monitor assets
- Simplify cabling and streamline your POS system architecture Share POS information across the LAN

Featured Pr
•ConnectPort
•Hubport/PCI-
•AnywhereUSI
•PortServer T
•Digi Neo
•Edgeport
•Digi One SP
•Watchport/V
•AccelePort X
•Watchport/P

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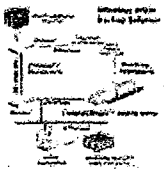
Retail/POS

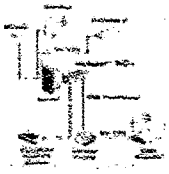
We offer an extensive range of connectivity solutions for retail applications.

Overview Product Applications News

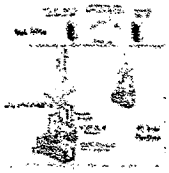


Reconnect during network outages
Solution: ConnectPort™ WAN VPN
Learn more

Replace POS terminals with zero-clients
Solution: ConnectPort™ Display
Learn more



Eliminate power cords for POS stations
Solution: Hubport®/PCI+
Learn more



Reduce size of retail stations
Solution: AnywhereUSB®/5
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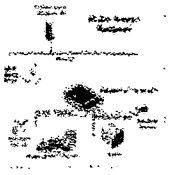
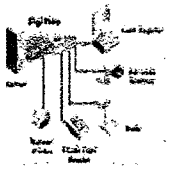


Network-enable warehouse printers and scanners
Solution: PortServer® TS 4
Learn more



Expanding low profile PCI systems
Solution: Digi Neo®
Learn more

Add serial ports to a PC via USB
Solution: Edgeport®/4
Learn more

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- Watchport/V
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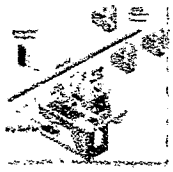
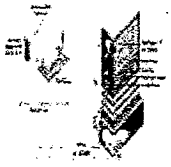


Network-enable POS peripherals
Solution: Digi One® SP
Learn more



Reduce gas station drive-offs
Solution: Watchport®/V2 USB camera
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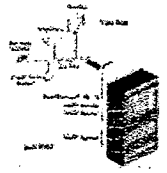
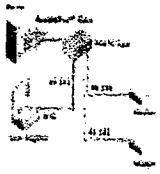


Manage inventory and POS checkouts
Solution: PortServer® TS 16
Learn more



Integrate multiple OS's in a POS system
Solution: AccelePort® Xem
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Create interactive kiosks with proximity sensors
Solution: Watchport®/P proximity sensor
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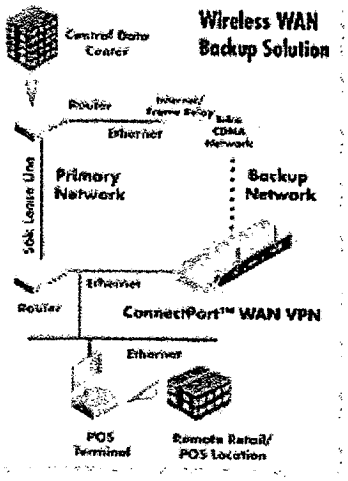
Reconnect During Network Outages

Problem:
Re-establishing network communications during a network outage

Customer:
Large apparel and home furnishings retailer

Solution:
ConnectPort™ WAN VPN



Larger View

A large fashion apparel and home furnishings retailer has a vast infrastructure in place to network its stores across nine states. The network consists of primary and backup connections including leased line, DSL and Plain Old Telephone Service (POTS).

Many of their stores are located in areas that are subject to hurricanes. During a string of particularly strong storms, at least one large retail location lost both primary and backup networks. This prompted the retailer to find an alternate backup solution that is not vulnerable to line breaks.

The ConnectPort WAN VPN, an upgradeable, commercial-grade 3G cellular router, is a perfect solution for this application. It creates a secure, truly diverse backup data network using CDMA (1xRTT EvDO) or GSM (HSDPA/UMTS) 3G wireless data networks. Other key features include:

- Integrated IPsec VPN client/server ensures true end-to-end data protection
- Upgradeable wireless network platform means quick migration to future 3G platforms and beyond
- Affordable data rate plans offer a cost-effective alternative to hardwired systems
- Unique Digi SureLink™ "always-on" connection maintains network for rapid airtime on-demand communications

With the ConnectPort WAN VPN backup solution in place, the retailer is assured that even if the primary network connection is lot, critical data such as point-of-sale information, credit card transactions and inventory data will still be transmitted back to the corporate home

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office. This failsafe solution reduces loss of sales due to network downtime and provides a reliable backup connection in the event of another outage.

Now you can:
Establish a truly diverse backup network using wireless/cellular technology.

Product solution:
ConnectPort WAN VPN

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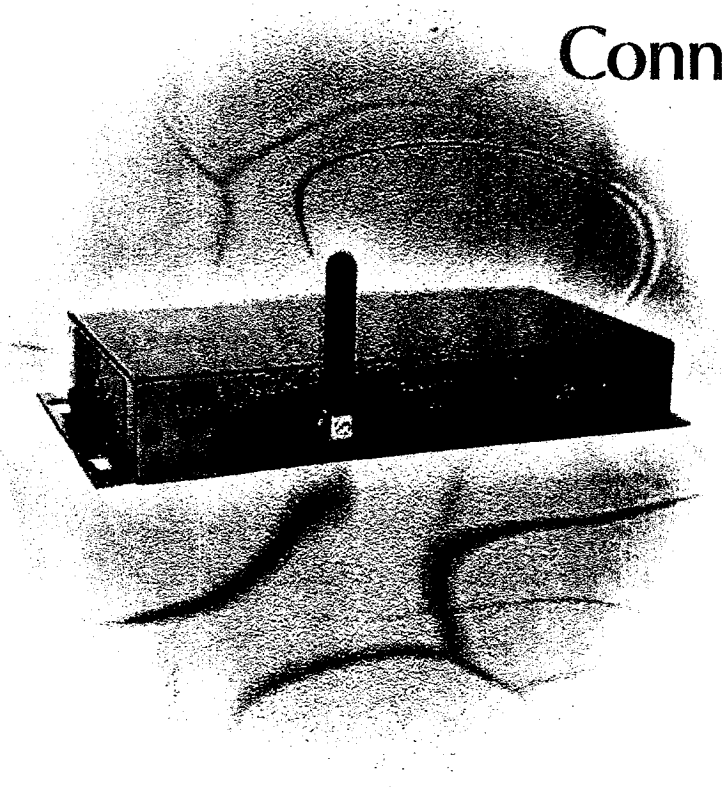
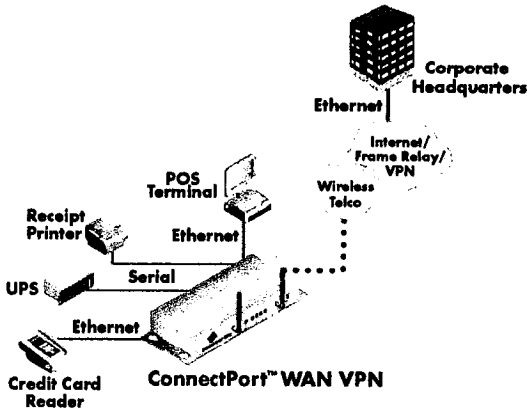
Product Datasheet

ConnectPort™ WAN VPN

3G Wireless WAN Router



ConnectPort WAN VPN is a hardened, upgradeable 3G router that provides high performance, secure wireless communications over cellular networks for connecting remote sites and devices.



Features/Benefits

- > High speed 3G cellular router
- > 2 serial ports, 4 Ethernet switch ports
- > Easily upgradeable wireless modules or PCM/CIA Cards
- > Air support for:
  - GSM GPRS/EDGE/UMTS/HSDPA
  - CDMA 1xRTT/EvDO
- > Available integrated VPN support
- > Unique Digi SureLink™ "always-on" connection maintains network for rapid airtime on-demand communications
- > Acts as backup or alternative to primary wireline networks
- > Patented Digi RealPort® COM port redirector
- > Web interface for easy centralized configuration and statistics
- > Integrates with Digi Connectware® Manager for enterprise management/monitoring of hundreds or thousands of devices

Overview

The ConnectPort WAN VPN is a hardened, upgradeable 3G cellular router that provides secure high speed wireless connectivity to remote sites and devices. It can be used for primary wireless broadband network connectivity to equipment at remote locations, as well as for a backup to existing landline communications. The ConnectPort WAN VPN is ideal for use where wired networks (e.g., leased line/frame relay, ISDN, DSL) are not feasible, or where alternative network connections are required.

The flexible design of the ConnectPort WAN VPN ensures easy upgradeability via supported Type 2 PCMCIA Card slots or PCI Express modules. With an upgradeable wireless network platform, customers are able to quickly migrate to future 3G platforms and beyond. ConnectPort WAN VPN also includes two RS-232 serial ports for connecting legacy COM devices and a built-in four-port 10/100 Ethernet switch for connecting additional TCP/IP network devices.

Benefits of the ConnectPort WAN VPN include instant deployment, elimination of wiring costs, elimination of problems due to wire breaks, and the flexibility to move the connection virtually anywhere. Plus, by using the unique Digi SureLink "always-on" feature, users can keep a connection alive via device or server initiated settings.

Applications include utilities, industrial automation, POS/retail, financial (ATMs), traffic, medical, video surveillance and more. For applications requiring secure connections, ConnectPort WAN VPN offers an available integrated IPsec VPN client/server for true end to end data protection.

Users can easily configure individual devices using built-in web pages or many devices at once via Digi Connectware Manager, an Enterprise remote device management software. Digi Connectware Manager provides easy setup, configuration, reporting and monitoring of large installations. Users can proactively monitor for problem devices including, excessive data usage, signal strength problems or even an unplugged cable. It also allows for simple firmware or configuration upgrades to thousands of devices with only a few clicks. A Dynamic DNS server is also integrated for making dynamic IP connections seamless.

Please contact us at 1-800-437-7251 or 952-912-3444 for additional information or to discuss your specific application requirements.

Features/Specifications

FEATURES

- Network protocols: UDP/TCP, DHCP
- Status LEDs: Ethernet, power on, cellular link/activity, signal strength (4 bars)
- RealPort COM port redirector and RFC2217
- Security - SSL, SSH v.2, FIPS 197 (serial port)

Router/Firewall Features

- NAT
- Port forwarding
- Access control lists (IP filtering)

VPN Features

- IPsec with IKE/ISAKMP
- Multiple tunnel support
- DES, 3DES and up to 256-bit AES Encryption
- VPN pass-through, GRE

Management

- HTTP/HTTPS web interface
- Optional secure enterprise management via Digi Connectware Manager

INTERFACES

Serial

- 2 RS-232 DB-9M serial ports
- Throughput up to 230 Kbps
- Full signal support for TXD, RXD, RTS, CTS, DTR, DSR and DCD
- Hardware and software flow control

Ethernet

- 4 RJ-45 switch ports
- Standard: IEEE 802.3
- Physical Layer: 10/100Base-T
- Data rate: 10/100 Mbps (auto-sensing)
- Mode: full or half duplex (auto-sensing)

INTERFACES

USB

- 1 USB Type A connector

Upgradeable Interfaces

- PCI Express
- 16/32-bit Type 2 PCMCIA Card slot

Supported Air Interfaces

- Sierra Wireless MC5720 EvDO PCI-Express Module - Sprint/Verizon
- Sierra Wireless Aircard UMTS/HSDPA PCMCIA Card
  - 860 - North American Carriers
  - 850 - European Carriers
- Sierra Wireless Aircard 775 EDGE Class 12 PCMCIA Card
  - North American and European Carriers

ENVIRONMENTAL

- Operating temperature: -30° C to +60° C (-22° F to +140° F)
- Relative humidity: 5% to 95% (non-condensing)
- Ethernet isolation: 1500VAC min per IEEE802.3/ANSI X3.263
- Serial port protection (ESD): +15 kV Air Gap and +8 kV contact discharge per IEC 1000-4-2

DIMENSIONS

- Width: 4.11 in (10.40 cm)
- Height: 1.30 in (3.30 cm)
- Length: 8.70 in (22.10 cm)
- Weight: 1.40 lb (64.00 kg) without a module
- Weight: 1.50 lb (0.68 kg) with a module

REGULATORY APPROVALS

Safety

- UL 60950
- CSA 22.2 No. 60950
- EN60950

Emissions/Immunity

- CE
- FCC Part 15, Class A
- AS/NZS CISPR 22
- EN55024
- EN55022, Class A

Mobile Certifications - CDMA/EvDO Versions

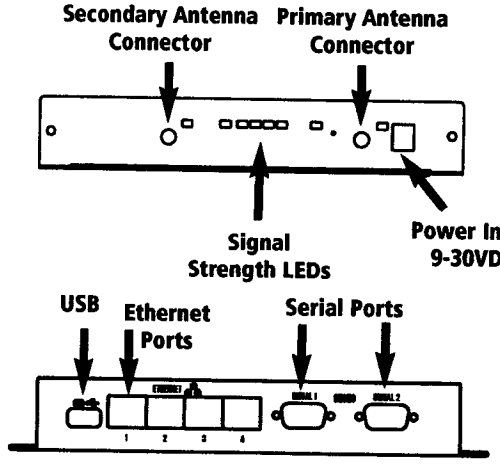
- CDG
- TIA/EIA-690
- TIA/EIA-98-E

Mobile Certifications - GSM/UMTS Versions

- PTCRB, NAPRD.03
- GCF-CC
- R&TTE, EN 301 511

POWER REQUIREMENTS

- Power input: 9-30VDC
- 12VDC power supply for 0° C to 60° C (32° F to 140° F) with locking barrel connector included; extended temperature available
- Power consumption: Idle: 3.1 W, Max: 11.5 W
- Surge protection (with included power supply): 4 kV burst (EFT) per-4-4, 2 kV surge per EN61000-4



MODEL.....PART NUMBERS

Model	North America	International
ConnectPort WAN VPN (No mobile wireless module included)	CP-WAN-A300	CP-WAN-A300-W
ConnectPort WAN VPN S-EvDo (Product ships with EvDO module ready to be provisioned on Sprint Network)	CP-WAN-A310	NA
ConnectPort WAN VPN V-EvDO (Product ships with EvDO module ready to be provisioned on Verizon network)	CP-WAN-A311	NA
Extended Temperature Power Supply	76000717	76000717

Antennas sold separately. See www.digi.com for antennas and accessories.

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www.digi.cn

www.digi.com

email:
info@digi.com

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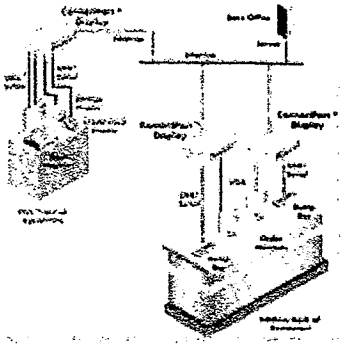
Replace POS Terminals with Zero-Clients

Problem:
Finding a drop-in replacement for proprietary POS terminals

Customer:
Drive-in restaurant chain

Solution:
ConnectPort™ Display



Larger View

Proprietary retail/POS systems and kitchen displays are commonplace in the restaurant industry; however, maintaining these systems becomes costly and complicated over time as the components become unavailable and technology changes.

The largest drive-in restaurant chain in the U.S. developed its own POS system based on terminals with customized keyboards and displays to handle POS, kitchen display and drive-up functions. Each location has up to 40 drive-in stalls, three to four order-taking POS stations with cash drawers, credit card readers and receipt printers, and 10-12 kitchen display systems with monitors and bump bar keyboards. Proprietary cabling is used to interconnect these systems with the master PC server.

The restaurant chain worked with Digi to find a more standard, Ethernet-based connectivity for the terminals and to provide a terminal replacement that would allow them to use more standard displays and keyboards. They also wanted a system that could be migrated to a feature and graphically rich Windows®-based solution over time.

Dig's new ConnectPort Display zero-client solution - the first of its kind - acts as a drop-in replacement for the proprietary terminals in the POS and kitchen display locations. The restaurant can replace outdated proprietary monitors with modern LCD displays, while still running their applications as if the old terminals were connected. Digi's patented RealPort® COM port redirector is used to tunnel the proprietary keyboard I/O, making the data transfer seamless. Connections from the ConnectPort Display units in the POS and kitchen areas are converted from the proprietary coax cabling to standard Ethernet CAT5 cables, which can also be leveraged for future applications.

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Key benefits of the new ConnectPort Display systems include:

- Zero-client solution provides drop-in terminal replacement without equipment and application replacement
- Significantly reduced maintenance costs relative to thin client or PC-based solution
- Ability to install order processing and order preparation areas at new stores much more efficiently, using less space
- Future upgrade to more capable Windows and graphics based solution will not require equipment changes to network or peripheral interfaces
- Reduces amount of critical equipment in hostile environments

Since the new kitchen monitors can display more orders, order preparation staff can be more efficient in keeping ahead of the demand. The ConnectPort Display zero-client solution is just what this drive-in restaurant chain ordered!

Now you can:
Migrate from proprietary to standard Ethernet-based POS terminal systems, without replacing equipment and applications.

Product solution:
ConnectPort™ Display

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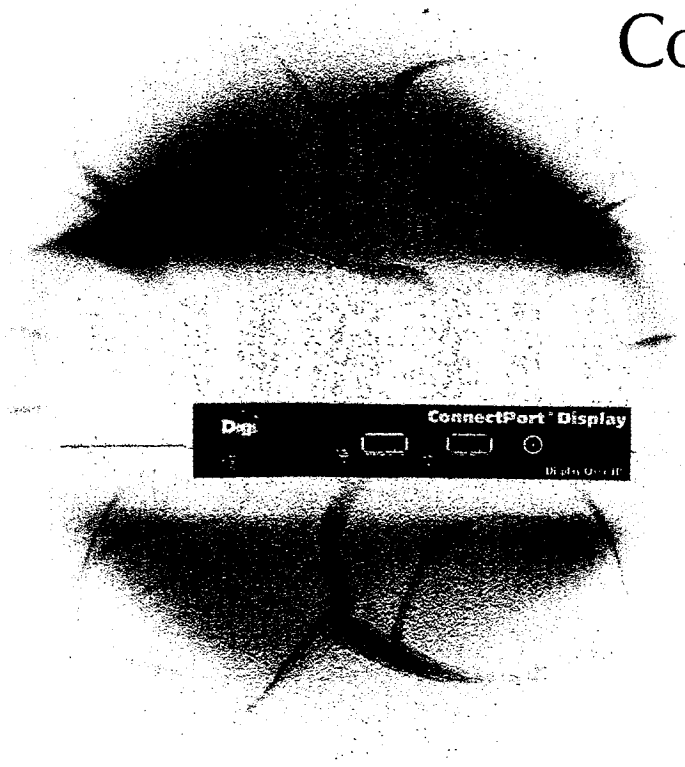
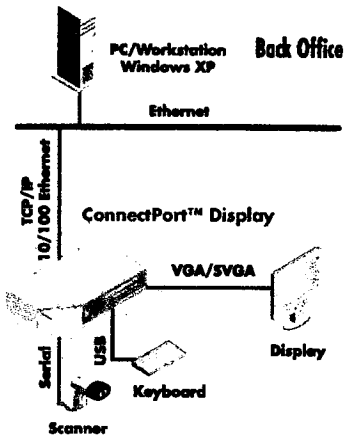
Product Datasheet

ConnectPort™ Display

Zero-Client Solution



The ConnectPort Display zero-client solution makes it possible to connect, monitor and control remote display, USB and serial devices over IP – without a locally attached host PC or thin client.



Features/Benefits

- Zero-client solution connects display, serial and USB devices to a LAN or other IP network
- Display over IP technology extends video cabling distance
- Access and monitor display devices over a TCP/IP connection, without a dedicated PC or thin client
- Patented Digi RealPort® technology for COM or TTY port control and management
- Reduces client access licensing fees
- Compatible with Windows®, Linux® and other popular operating systems
- Compatible with Microsoft® Virtual Server, VMware and other server virtualization applications
- Supports terminal emulation for migration of legacy systems
- Supports remote management and troubleshooting over an IP network
- Ideal for mission-critical applications including retail/POS, restaurants, manufacturing, digital advertising, public information displays, medical and banking

Overview

ConnectPort Display is the industry's first zero-client remote networking solution. It connects display, serial and USB devices over IP to transform traditional PC architecture, allowing the interactive experience to be placed anywhere there is a network connection – a dedicated PC is not required at the same location and there are no changes to application software.

This Ethernet-attached solution provides a single VGA or SVGA video port and additional serial and USB ports for human interface devices such as a keyboard, mouse or touch panel. Remote displays can be centrally managed and monitored from a remote server or PC via an IP address. This translates to smaller deployment stations, centralized management and reduced IT support.

ConnectPort Display is ideal for mission-critical enterprise applications. The zero-client can be deployed in restaurant kitchens, access control systems, industrial automation, digital advertising or any environment that is volatile, not secure or where having an onsite PC is impractical.

ConnectPort Display also supports standard terminal emulation, resulting in straightforward migration from legacy terminal-based systems. This gives the flexibility to deploy ConnectPort Display today in a terminal oriented configuration and migrate to newer graphic displays whenever desired.

Digi International makes device networking easy by developing products and technologies that are cost-effective and easy to use. With over 20 million ports shipped worldwide, Digi has been offering the highest levels of performance, flexibility, and quality since 1985.

Features/Specifications

FEATURES

- 10/100Base-T Ethernet support
- RJ-45 Ethernet connector
- Analog VGA 15-pin D-Sub display connector
  - VGA or SVGA compatible
  - Up to 1600x1200 resolution (model dependent)
  - Up to 32-bit color (model dependent)
- Additional peripheral device ports (model dependent)
  - 1 RS-232 serial DB-9
  - 1 RS-232 serial RJ-45
  - 2 USB Type A
  - 1 PS/2 port
- 1 IP address per unit, static or DHCP
- Audio
  - Headphone or amplified speaker output
  - Amplification up to 2.5 watts
  - 1/8" stereo mini-jack output
  - Amplified audio speaker connector
  - 1/8" mono microphone input
- Multiple units may be supported per server
- Patented Digi RealPort COM/TTY redirector for serial port connections
- Compatible with RealVNC, UltraVNC and other open source VNC server applications
- Compatible with Microsoft Virtual Server, VMware and other server virtualization applications
- Requires no Microsoft CAL license
- Robust terminal emulation for VT-220 and other terminal devices
- Embedded VNC server enables remote monitoring and troubleshooting via an IP address

NETWORK AND DEVICE RECOMMENDATIONS

- 100 Mb/sec switched Ethernet
- Network utilization below 50%
- Compatible with HID class USB devices

OPERATING SYSTEMS

- Compatible with any server operating system supporting VNC server application, including:
  - Microsoft Windows platforms
  - Linux & other UNIX platforms
  - Mac OS
  - DOS (no RealPort support)

ENVIRONMENTAL

- Operating temperature: 32° F to 131° F (0° C to 55° C)
- Relative humidity: 0% to 95% (non-condensing)

DIMENSIONS

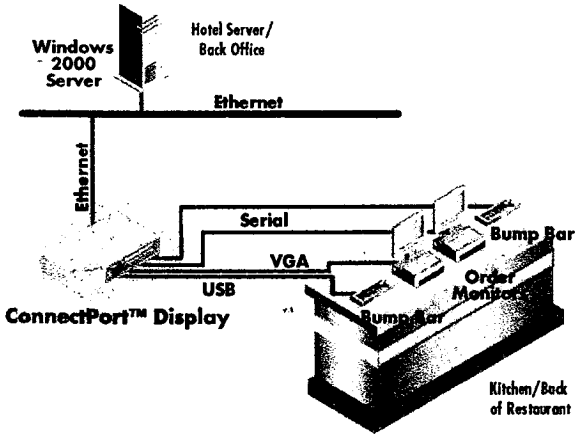
- Length: 4.35 in (11.05 cm)
- Width: 7.20 in (18.29 cm)
- Height: 1.03 in (2.61 cm)
- Weight: 10.00 oz (311.00 g)

POWER REQUIREMENTS

- Ships with 120/230VAC power supply 50/60 Hz at 5VDC @ 2.9 Amps max

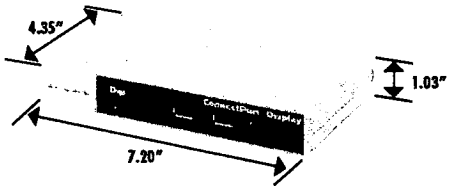
REGULATORY APPROVALS

- FCC Part 15, Class B
- CE
- EN55022
- EN55024
- EN60950
- UL 1950
- CSA 2.2 No. 950
- IEC 950



MODEL.....PART NUMBERS

Model	North America	International
ConnectPort Display (2 USB, 2 serial, 1 VGA)	301-1180-01	301-2180-01
ConnectPort Display (2 USB, 2 serial, 1 VGA, high resolution)	CP-DIS-M22	CP-DIS-M22-W
ConnectPort Display (2 USB, 1 serial, 1 PS/2, 1 VGA, high resolution)	CP-DIS-M211	CP-DIS-M211-W



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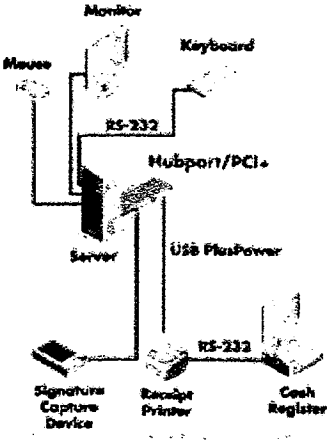
Eliminate Power Cords for POS Stations

Problem:
Saving space, eliminating power cords and reducing cost of POS stations

Customer:
Department store chain

Solution:
Hubport® PCI+



Larger View

A department store was preparing to upgrade its POS stations in its stores nationwide. Each system required a variety of POS peripheral devices, some of which were USB-attached and required external power supply bricks. This created a tangled mess of wires, required extra room for the bricks, and also made it difficult to troubleshoot and perform routine maintenance. The retailer had two basic requirements for the upgrade: eliminate external power supply bricks for USB devices and keep upgrade costs to a minimum.

The system integrator suggested a migration to USB PlusPower peripheral devices, since they do not require external power supply bricks even for higher power devices like printers. Since this technology, also known as powered USB, is a relatively new trend in POS, a specialized retail system is usually required to connect the devices. In this case, "specialized" meant beyond budget, so the department store was at a loss as to how they could implement the technology while keeping costs down.

The Hubport/PCI+ enabled the department store to connect the USB PlusPower peripheral devices to a standard, low-cost PC. This four-port card solution was installed, keeping costs of the new retail system to a minimum. The department store was able to migrate to USB PlusPower receipt printers and signature capture devices, eliminating the problematic power supply bricks and instantly saving space. The Hubport/PCI+ also provided an applet that enabled technicians to turn off power to one or all devices, allowing periodic system updates without significant downtime. Implementing the Hubport/PCI+ solution allowed the department store to meet its key requirements in the system upgrade.

Now you can:
Eliminate power supply bricks for USB devices and transform a basic, low-cost PC into a high performance retail system.

Related Links
- Hubport PCI+ product information
- Retail/POS application guide

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Product solution:

Hubport PCI+ product information

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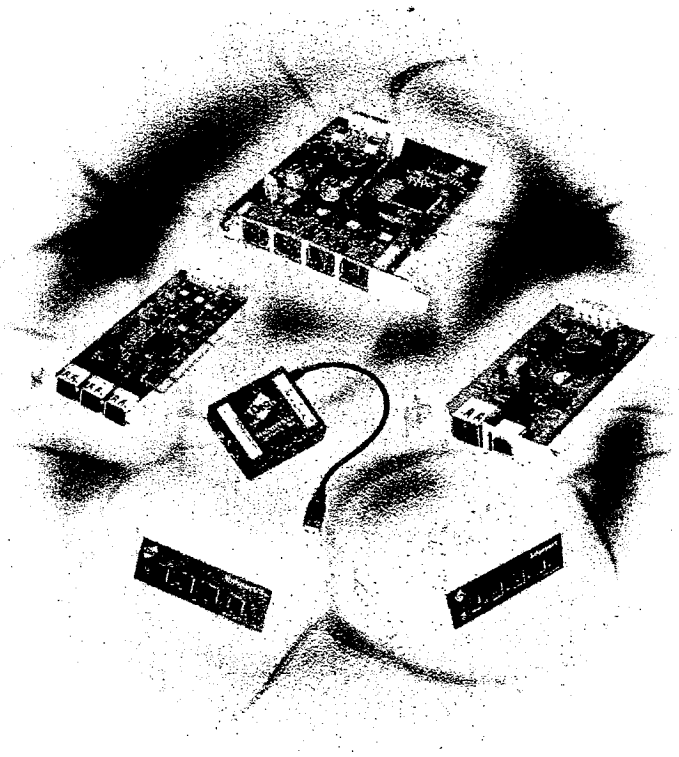
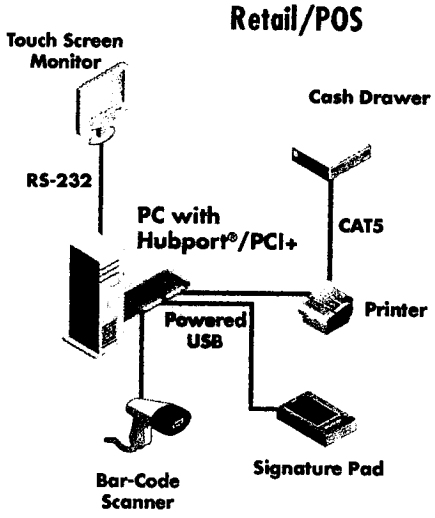


USB Plus Series

Powered USB Solutions

Save space and simplify retail and medical system architecture by eliminating individual power supply bricks for USB peripheral devices.



Features/Benefits

- > Eliminates individual power supply bricks for USB peripheral devices
- > Internal card and external hub solutions for easy application customization
- > Supplies power and communication signals over hot-pluggable USB cable
- > Enables a low-cost, standard PC to become a high-performance retail system
- > Cable locking mechanism ensures secure connection
- > Compatible with standard USB and powered USB peripheral devices
- > Power balancing technology provides maximum power to 12-volt and 24-volt peripherals, without exhausting the PC's five- or 12-volt power

Overview

USB PlusPower (powered USB) technology was developed as an alternative to externally powered USB devices. Its unique cabling allows USB devices to receive power from the PC instead of external power supply bricks, maintaining the Plug and Play end user experience typical of USB connectivity.

With the proliferation of USB peripheral devices in the retail/Point-of-Sale (POS) and medical/Point-of-Care (POC) industries, integrators face the challenge of creating elegant, yet cost-effective POS/POC systems that can handle the additional power voltage required for many USB devices like printers, signature capture devices and bar-code scanners.

The USB Plus Series makes it easy to add powered USB ports to a standard, low-cost PC, transforming a small footprint CPU into a high-performance POS/POC system. Each solution offers four powered USB ports that are compatible with both standard and powered USB devices. Hubport®/4+ and Hubport/4c+ are externally powered hubs that connect to standard USB ports. Hubport/PCI+ full-size and low profile card solutions are available in both internally powered and externally powered models. For added flexibility, Edgeport®/42+ also offers two RS-232 serial DB-9 ports, allowing the connection of powered USB, standard USB and legacy serial devices in a single box.

Digi International makes device networking easy by developing products and technologies that are cost-effective and easy to use. With over 20 million ports shipped worldwide, Digi has been offering the highest levels of performance, flexibility, and quality since 1985.

Features/Specifications

FEATURES

- Compatible with standard (type A) and locking powered USB connectors
- Locking power connectors (external models)
- Power balancing technology for efficient power management
- Port level power management on select models
- Plug and Play
- Convection cooled design
- Full hardware and software flow control
- Meets power switching requirements of USB 1.1 specification

Hubport/PCI+

- Universal PCI (3.3V and 5.5V) card
- Full-size or low-profile
- 4 powered USB ports
- 2-card low-profile solution
  - 3 x 12V card
  - 1 x 24V card
  - Cards may be linked or stand alone
- USB 2.0 compatible
- Baud rates to 480 Mbps
- 2 power options
  - Full internal power
  - External power supply (full-size card)

Hubport/4+, Hubport/4c+, Edgeport/42+

- External to PC
- USB to 4 powered USB ports

FEATURES (CONTINUED)

- 2 RS-232 serial DB-9 ports (Edgeport/42+ only)
- USB 1.0 and 1.1 compatible; backwards compatibility for 2.0
- Baud rates to 12 Mbps
- External power supply
- 10.0 in (25.4 cm) captive cable (Hubport/4c+ only)
- Tri-state LED for device status and port activity

DIMENSIONS

Hubport/PCI+

- Full size PCI card

Hubport/PCI+ Low profile

- MD2 sized low-profile PCI card
- 2.50 in x 6.60 in (63.50 cm x 16.76 cm)

Hubport/4+

- Length: 4.35 in (11.05 cm)
- Width: 7.20 in (18.29 cm)
- Height: 1.75 in (4.45 cm)
- Weight: 10.50 oz (297.67 g)

Hubport/4c+

- Length: 2.61 in (6.63 cm)
- Width: 3.00 in (7.62 cm)
- Height: 1.00 in (2.54 cm)
- Weight 4.20 oz (118.00 g)

Edgeport/42+

- Length: 4.35 in (11.05 cm)
- Width: 7.20 in (18.29 cm)
- Height: 1.75 in (4.45 cm)
- Weight: 11.00 oz (311.84 g)

ENVIRONMENTAL

- Operating temperature: 0° C to 65° C (32° F to 149° F)
- Relative humidity: 0% to 95% (non-condensing)

REGULATORY APPROVALS

- FCC Part 15, Class B
- CE
- EN55022, EN55024, EN60950
- UL 1950
- CSA 2.2 No. 950
- IEC-950

OPERATING SYSTEMS

- Windows® XP/XP Embedded
- Windows NT® 4.0/NT Embedded
- Windows CE
- Windows 2000/Me
- Windows 95/98/SE
- Windows Server™ 2003

POWER REQUIREMENTS

Hubport/4+, Hubport/4c+, Edgeport/42+

- Input power
  - Standard external power supply included: 72 watt avg., 90 watt peak
  - 100-240V, 50/60 Hz, 1.6 Amp
- Output power
  - 12V: up to 30 watts
  - 24V: up to 60 watts
  - All combined: up to 72 watts

Hubport/PCI+

- Input power
  - Optional standard external power supply: 72 watt avg., 90 watt peak
  - 100-240V, 50/60 Hz, 1.6 Amp
- Output power
  - 12V: up to 36 watts*
  - 24V: up to 72 watts*
  - All combined: up to 72 watts*

*With external power supply. Without external power supply, power is limited by available power from PC, up to 72 watts.

MODEL.....PART NUMBERS

Model	North America	International
Edgeport/42+ (USB to 4-port powered USB hub; 2 serial DB-9; power supply)	301-1001-42	301-2001-42
Hubport/4+ (USB to 4-port powered USB hub; power supply)	301-1010-14	301-2010-14
Hubport/PCI+ (PCI to 4-port powered USB card; optional power supply sold separately)	301-1149-01	301-1149-01
Hubport/PCI+ (PCI to 4-port powered USB card; internally powered)	301-1150-01	301-1150-01
Hubport/PCI+ (PCI to 4-port powered USB card with external power supply)	301-1151-01	301-2151-01
Hubport/PCI+ Power Supply (Optional power supply for 301-1149-01)	301-9007-01	301-9207-01
Hubport/4c+ (Compact 4-port powered USB hub)	301-1157-01	301-2157-01
Hubport/PCI+ LP 1x24V (Low profile PCI to 24V port powered USB; internally powered)	301-1170-01	301-1170-01
Hubport/PCI+ LP 3x12V (Low profile PCI to 3 12V ports powered USB; internally powered)	301-1171-01	301-1171-01
Hubport/PCI+ LP w/PS (Low profile PCI to 24V port powered USB; w/external power supply)	301-1172-01	301-2172-01
Hubport/PCI+ LP 1 x 24V w/Cable (Low profile PCI to 24V port powered USB; w/ribbon cable to 12V card)	301-1173-01	301-1173-01

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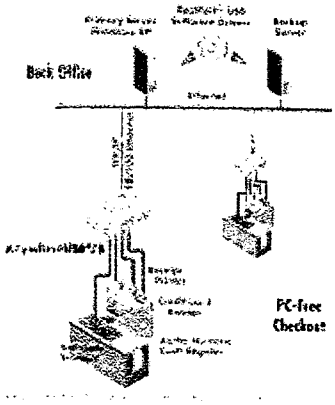
Reduce Size of Retail Stations

Problem:
Creating smaller, centrally managed retail stations

Customer:
POS system manufacturer

Solution:
AnywhereUSB®/5



Larger View

Real estate, especially floor space inside a store, is invaluable to a retailer. The smaller the POS stations, the more room for merchandise, and the higher potential for revenue. A major POS system manufacturer was searching for a way to build a thinner POS station for a retailer with three checkout stations per store. The retailer wanted not just a smaller footprint, but also an easy way to centrally manage each station.

The POS system manufacturer tested the AnywhereUSB/5, a 7-inch wide network-enabled USB hub, and found that it could take the place of the PC or dumb terminal at each POS station. Special software drivers are loaded on the back-office server, where all transaction processing takes place via USB Over IP® technology. Each POS station includes one AnywhereUSB, which is connected to the LAN over a standard TCP/IP connection. A bar-code scanner, credit card reader, receipt printer, pole display and alphanumeric cash register are connected to the AnywhereUSB. The five USB ports on each AnywhereUSB appear to be locally attached to the back-office server.

The AnywhereUSB also offered this retailer centralized management, instantly increasing security and reducing IT support. Since the AnywhereUSB replaced the PC at each POS station, less user-intervention can occur, reducing data corruption or tampering. It enables IT to perform maintenance and upgrades at a single server rather than at multiple PCs. This set-up also provides system redundancy – if the server fails, another server on the network can take over, reducing system downtime.

Now you can:
Take the PC out of the checkout lane to create smaller retail stations and simplify operations with USB Over IP technology.

Related Lin
•AnywhereUS information
•Retail/POS a guide

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Product solution:

AnywhereUSB/5 product information

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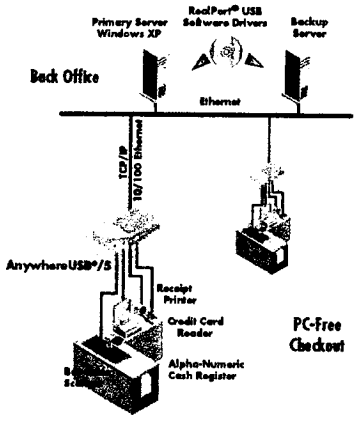
AnywhereUSB®

USB Over IP®

AnywhereUSB is a network-enabled USB hub. It utilizes patented USB Over IP technology to break the traditional five-meter USB cabling distance limitation, allowing peripheral devices to be anywhere on a Local Area Network (LAN) – without a locally-attached host PC.



Features/Benefits

- > **Network-enabled USB hub easily connects point-of-sale devices to a LAN**
- > **USB Over IP extends USB cabling distance beyond five meters**
- > **Creates systems redundancy and increases security since host PC can be moved to a remote location**
- > **Access and monitor devices over a TCP/IP connection**
- > **Simplifies operations and reduces IT support**
- > **USB ports appear to be locally attached and provide same Plug and Play user experience as on board USB ports**
- > **Designed for mission-critical enterprise applications like point-of-sale, industrial automation, mobile computing, access control and more**

Overview

AnywhereUSB is the first remote networking solution to utilize RealPort® USB, Digi's patented USB Over IP technology, making it easy to connect USB devices anywhere on a wired or wireless LAN, while eliminating the need for locally-attached host PCs. This Ethernet-attached solution provides five USB ports, which deliver the same Plug and Play user experience as onboard USB ports. AnywhereUSB software drivers are loaded onto a host PC or server, enabling remote devices to communicate with the host, without changing existing application software. Peripheral devices can be centrally managed and monitored from a remote server or PC via an IP address.

For retailers, relocating the host PC to a back office or other remote location translates to smaller point-of-sale stations, centralized management, reduced IT support and instant system redundancy. Kiosk, ATM or pay-at-the-pump manufacturers can eliminate the PC inside the enclosure, reducing concerns of extreme changes in temperature or humidity. AnywhereUSB is also an ideal solution for restaurant kitchens, access control systems, industrial automation or any environment that is volatile, not secure or where having an onsite PC is not practical.

AnywhereUSB is compatible with bulk or interrupt type USB devices such as bar-code scanners, printers, fingerprint scanners, mice, pole displays, card readers and more. Our Watchport®/V2 USB Camera, Watchport Sensors and Edgeport® USB-to-Serial Converters are also fully compatible with AnywhereUSB.

Digi International makes device networking easy by developing products and technologies that are cost-effective and easy to use. With over 20 million ports shipped worldwide, Digi has been offering the highest levels of performance, flexibility, and quality since 1985.

· Features/Specifications

FEATURES

- RJ-45 Ethernet to 5 USB ports
- Remote configuration utility
- Field-upgradeable software and firmware
- 1 static (fixed) IP address per unit
- 10/100Base-T Ethernet support
- LEDs for system and device status
- RJ-45 crossover cable
- Data rates up to 12 Mbps per USB port
- 500 mA downstream power per device
- USB 1.0, 1.1, 2.0 compatible (USB 2.0 devices operate at 12 Mbps)
- Multiple units supported per server
- 2 Open Host Controller Interface (OHCI) controllers

REGULATORY APPROVALS

- FCC Part 15, Class B
- CE
- EN55022
- EN55024
- EN60950
- UL 1950
- CSA 2.2 No. 950
- IEC-950

OPERATING SYSTEMS

- Windows® XP, Windows XP Embedded
- Windows NT®, Windows NT Embedded
- Windows 2000
- Windows Server™ 2003

POWER REQUIREMENTS

- Ships with 120/230VAC 60/50 Hz at 5VDC @ 3 Amps max

NETWORK AND DEVICE RECOMMENDATIONS

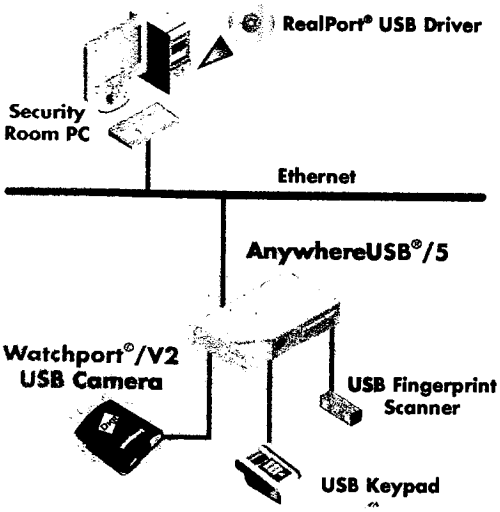
- 100 Mb switched Ethernet per AnywhereUSB
- Network utilization below 50%
- Compatible with bulk or interrupt type USB devices; isochronous devices not supported

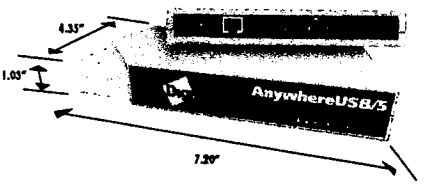
ENVIRONMENTAL

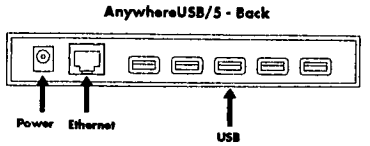
- Operating temperature: 32° F to 140° F (0° C to 60° C)
- Relative humidity: 0% to 95% (non-condensing)

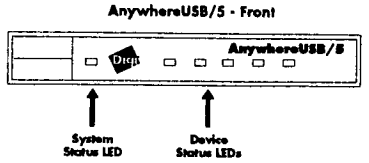
DIMENSIONS

- Length: 4.35 in (11.05 cm)
- Width: 7.20 in (18.29 cm)
- Height: 1.03 in (2.61 cm)
- Weight: 10.00 oz (283.49 g)









MODEL.....PART NUMBERS

Model	North America	International
AnywhereUSB/5	301-1130-01	301-2130-01

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Network-Enable Warehouse Printers and Scanners

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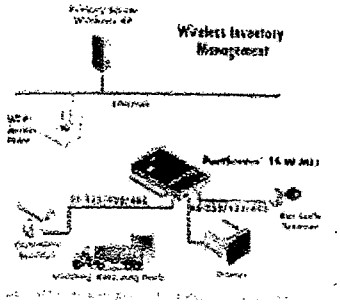
Problem:
Network-connecting printers and scanners that are scattered throughout the warehouse

Customer:
Retail distribution center

Solution:
PortServer® TS 4



Larger View

A warehouse is the heart of any merchandise distribution. The fast and accurate tracking of incoming and outgoing shipments is essential to successfully manage orders and inventory.

In order to streamline the logistics associated with running its merchandise warehouses, this company decided to upgrade the warehouse system. Several overheard scanners were installed at each warehouse location to allow faster and more efficient unloading of delivery trucks using conveyors, virtually eliminating the slow and resource-intensive manual scanning process. The scanned information is then used to automatically print labels, route packages on the conveyors and immediately validate purchase and shipping orders. A key requirement of the project was the easy and seamless network integration of scanners and printers, which were often scattered throughout the large facilities.

The PortServer TS 4 with Digi's patented RealPort® technology was deployed in each warehouse, connecting up to four different serial devices to the existing order and inventory management system. Scanners and printers were made available on the network, without any changes to existing application software and hardware. The flexibility of Digi device servers proved to be invaluable, allowing the customer to significantly reduce operating costs and function more efficiently.

Now you can:
Optimize supply chain efficiency by automating delivery and pick-up of warehouse merchandise using Digi's multiport device servers.

Product solution:
PortServer TS 4 product information

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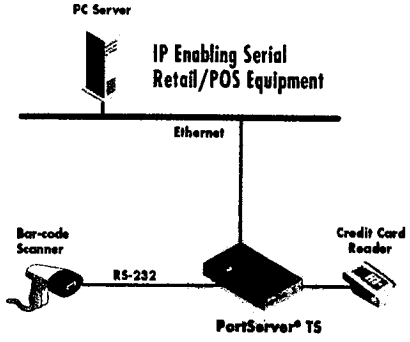
PortServer® TS 1/2/4

Device Server

PortServer TS device servers are designed for standard and secure serial-to-Ethernet connectivity. They are ideal for RS-232 applications requiring seamless integration to existing application environments and network device management.



Features/Benefits

- > Easily network-enable multiple serial devices
- > RS-232 provides an easy connection to any serial device
- > Digi's patented RealPort for COM or TTY port control and management
- > Management and diagnostic utility for simple and efficient device monitoring and troubleshooting
- > Modem emulation allows existing modem-based applications to make connections over IP networks
- > Secure communication via SSHv2
- > Port buffering for data capture
- > Easy configuration through web interface (HTTP/HTTPS)
- > SNMP for easy network management
- > PPP support
- > Tunable for low latency or optimized throughput

Overview

The PortServer TS delivers simple, reliable and cost-effective network connectivity for multiple serial devices. Available in one-, two- and four-port models, it addresses the growing need to connect individual devices to the network over industry standard Ethernet in many applications, including retail/point-of-sale, building control and medical point-of-care.

Part of Digi's broad device server offering, the PortServer TS delivers standard serial-to-Ethernet connectivity and is ideal for applications requiring COM ports, serial tunneling, TCP or UDP Sockets, or the ability to send UDP packets to multiple destinations. Digi's RealPort® technology, which features encryption and user authentication*, delivers the industry's most robust, reliable and versatile COM port control and management. RealPort makes it possible to establish a connection between the host and networked serial device by creating a local COM or TTY port on the host computer, allowing software applications to work with networked device servers instead of requiring a host adapter.

The PortServer TS is easy to install locally or remotely through a variety of IP addressing methods (DHCP, RARP, ARP-Ping) along with an application included on the installation CD that will automatically detect all PortServer devices on your network.

Digi International makes device networking easy by developing products and technologies that are cost-effective and easy to use. With over 20 million ports shipped worldwide, Digi has been offering the highest levels of performance, flexibility, and quality since 1985.

*The RealPort encryption feature works with the following operating systems: AIX, HP UX, Linux, Windows XP, Windows 2000, Windows Server 2003, SCO OpenServer and Solaris. The RealPort authentication feature is comparible only with Windows XP, Windows 2000 and Windows Server 2003.

Features/Specifications

FEATURES

- 10/100Base-T Ethernet support
- 1/2/4 RS-232 RJ-45 serial ports
- Baud rates up to 230 Kbps
- Full modem and hardware flow control
- TCP/UDP Socket Services
- Telnet and Reverse Telnet
- Patented RealPort with encryption for COM and TTY ports
- 9-30VDC input
- RFC 2217
- Modem emulation
- SNMP (read/write)
- PPP
- SSHv2
- Port buffering
- Modbus to Modbus/TCP conversion
- Easy configuration through web interface (HTTP/HTTPS)
- Digi Port Authority – Remote management diagnostics and auto-discovery tool
- DHCP/RARP/ARP-Ping for IP Address assignment
- LED status for link and power
- RJ-45/DB-9F crossover cable included for optional serial configuration

DIMENSIONS

- Length: 5.25 in (13.34 cm)
- Width: 3.33 in (8.46 cm)
- Depth: 0.95 in (2.42 cm)
- Weight: 2.25 oz (64.00 g)

OPERATING SYSTEMS

- AIX
- HP-UX
- Linux
- Windows® XP*
- Windows 2000*
- Windows Server™ 2003*
- Windows NT®
- Windows 98/ME
- SCO® OpenServer™
- SCO UnixWare™
- Solaris™ (Intel)
- Solaris (SPARC)
- TCP/UDP Socket Services are operating system independent

ENVIRONMENTAL

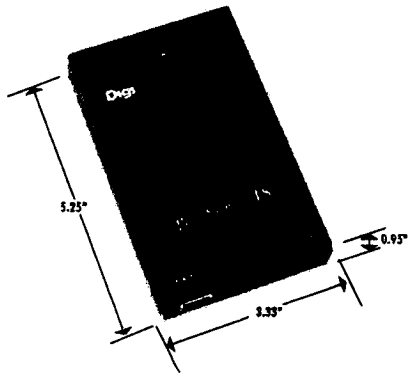
- Operating temperature: 0° C to 60° C (32° F to 140° F)
- Relative humidity: 5% to 90% (non-condensing)
- Ethernet Isolation: 1500VAC min per IEEE 802.3/ANSI x 3.263
- Serial Port Protection (ESD): 15 kV air and 8 kV contact

REGULATORY APPROVALS

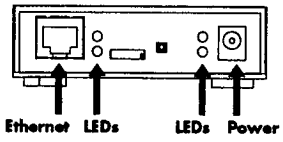
- FCC Part 15, A
- CE
- 55034
- 55022, Class A
- UL 1950
- CSA 22.2 No. 950

POWER REQUIREMENTS

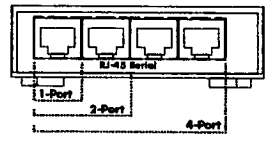
- Power supply included
  North America
  12VDC/.5A max out; 120VAC in (wall mount)
  International
  12VDC/.5A max out; 100-240VAC in (small brick)
- Product will accept 9-30VDC
- Power Consumption
  - Typical: 4W
  - Max: 6W
- Surge Protection (with included power supply)
  - 4 kV burst (EFT)
  - 2 kV surge



PortServer TS Family - Front



PortServer TS 1/2/4 - Back



MODEL.....PART NUMBERS

Model	North America	International
PortServer TS 1	70002041	70002042
PortServer TS 2	70002043	70002044
PortServer TS 4	70002045	70002046
Accessories		
Wall-Mount Bracket	76000640	76000640
DIN Rail Bracket	76000682	76000682
Replacement Power Supply (wall mount)	76000737	N/A
Replacement Power Supply (small brick)	76000654	76000654

See product catalog for cabling/connector options.

DIGI SERVICE AND SUPPORT

You can purchase with confidence knowing that Digi is here to support you with expert technical support and a strong five-year warranty. www.digi.com/support

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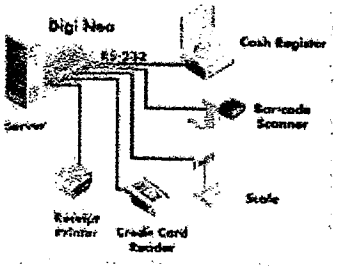
Industrial Automation
Government

Expanding Low Profile PCI Systems

Problem:
Connecting serial POS devices to low-profile PCI slots

Customer:
Grocery store

Solution:
Digi Neo®



Larger View

Proprietary networking and POS systems are commonplace in today's retail environment. For some companies, the specialized IT support required for system maintenance and upgrades of these systems is not practical.

A grocery store chain with 94 locations in the eastern United States was preparing to overhaul its LAN and POS application. Their previous retail system infrastructure relied heavily on proprietary components that required expensive and time consuming programming and maintenance by an external IT professional. The company wanted to create a simple POS system, using networked PCs to connect the required peripheral devices.

The grocery store began looking for an internal PCI card solution to add serial connectivity to its PCs; however, it realized that a "low-profile" card was required because the PCI slot in each PC was half the height of standard PCI cards. To further complicate matters, most PCI card manufacturers only offer low-profile solutions in two- and four-port options. Since they needed to connect a receipt printer, scale, credit card scanner, cash drawer and bar-code scanner, at least five serial ports were required.

The integrator working with the grocery store presented the Digi Neo Universal PCI 8-port card as part of a total LAN-based checkout system. The Digi Neo is one of the only low-profile eight-port card solutions available on a single board. The grocery store liked the flexibility of having extra ports for future connectivity needs, as well as extensive cabling and connector options with the Digi Neo.

Now you can:
Easily add up to eight serial ports to a low-profile PCI card slot for serial peripheral device connectivity.

Related Linl
•Digi Neo proc information
•Retail/POS a guide

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Product solution:

Digi Neo product information

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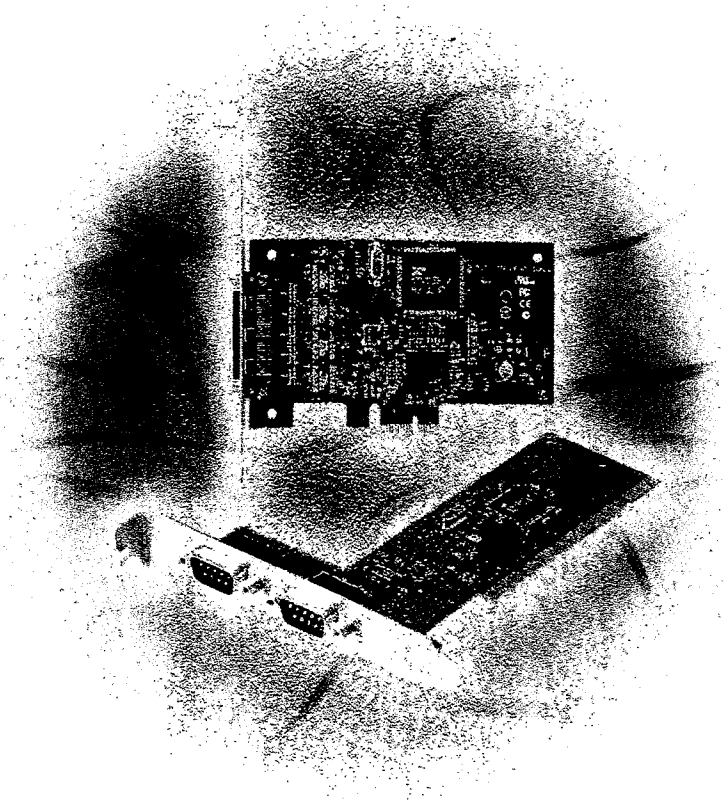
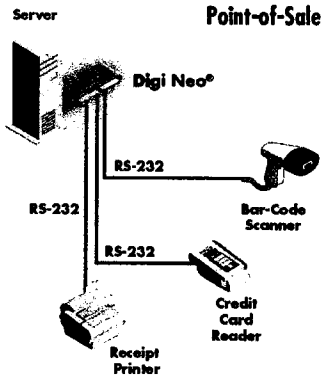
Product Datasheet



Digi Neo®

Multiport Serial Cards

The Digi Neo delivers reliable serial port expansion in standard and low profile Universal PCI or PCI Express, with throughput speeds exceeding 460.8 Kbps. Its extensive cabling and software driver options provide maximum flexibility in installations.



Features/Benefits

- > One, two, four or eight RS-232 serial ports
- > Universal PCI (3.3V and 5.5V) bus slot support
- > Enhanced monitoring and diagnostic tool for ease-of-use
- > Flexible cabling/connector options
- > Surge suppression on all signals ensures voltage fluctuations will not degrade data transmissions
- > Low latency for reliable per formance
- > Powered serial port options
- > Ideal for tight work spaces and specialized server/PC environments and applications such as retail/POS, industrial automation, factory control, kiosks and data collection
- > Windows®, UNIX® and Linux® driver support

Overview

The Digi Neo can easily give your business a competitive advantage by enabling your serial devices. Its low profile size makes it one of the smallest form factor serial card solutions on the market today and one of the fewest to offer a low profile eight-port solution on a single card. The Digi Neo's extensive cabling options (RJ-45, DB-9, DB-25) set a new standard for ease-of-installation and provide the only solution for tight workspaces and specialized server/PC environments.

The Digi Neo leverages an Application Specific Integrated Circuit (ASIC) for reliable performance. It also delivers throughput speeds exceeding 460.8 Kbps, large buffers for data transfer, low latency and baud rate customization. Surge suppression (15 kV) protects the signal for each port to ensure voltage fluctuations will not degrade data transmissions, which keeps the system running smoothly. This robust feature set makes the Digi Neo ideal for point-of-sale, industrial automation, factory control, kiosks and data collection applications.

The Digi Neo provides an enhanced software monitoring and diagnostic tool for Windows operating systems. A similar tool for UNIX and Linux operating systems is also available.

Digi International makes device networking easy by developing products and technologies that are cost-effective and easy to use. With over 20 million ports shipped worldwide, Digi has been offering the highest levels of performance, flexibility and quality since 1985.

Features/Specifications

FEATURES

- 1, 2, 4 or 8 RS-232 serial ports
- DB-9, DB-25 and RJ-45 connectors
- Universal PCI (3.3V and 5V) platform
- 32- and 64-bit PCI slot
- Low profile options
- PCI-X/PCI 2.3 compatible
- Surge suppression (15kV) on all signals
- Throughput exceeding 460.8 Kbps
- Powered (5V) serial port options using Ring Indicator signal at 600 mA
- Full modem control
- Hardware or software flow control
- Low latency— same or better than standard COM port
- Custom baud rates
- 16C850 UART equivalent

DIMENSIONS

Digi Neo
- Length: 4.72 in (11.99 cm)
- Width: 0.73 in (1.84 cm)
- Weight: 2.00 oz (57.00 grams)

4- or 8-port
- Height: 2.45 in (6.22 cm)

2-port DB-9
- Height: 3.38 in (8.60 cm)

2-port RJ-45
- Height: 2.05 in (5.20 cm)

4-port RJ-45
- Height: 4.00 in (10.16 cm)

1-port DB-25
- Height: 2.38 in (6.03 cm)

OPERATING SYSTEMS

- Windows Server™ 2003
- Windows XP
- Windows 2000
- Windows NT®
- Windows 95/98/Me
- Linux
- UNIX
- SCO® OpenServer

MODEL.....PART NUMBERS

Model	Worldwide
Universal PCI (3.3V & 5V) RS-232	
Digi Neo Universal PCI (3.3V & 5V) 1-Port DB-25M	77000864
Digi Neo Universal PCI (3.3V & 5V) 2-Port DB-9M	77000847
Digi Neo Universal PCI (3.3V & 5V) 2-Port RJ-45	77000848
Digi Neo Universal PCI (3.3V & 5V) 4-Port RJ-45	77000855
Digi Neo Universal PCI (3.3V & 5V) 4-Port w/o Cables	77000857
Digi Neo Universal PCI (3.3V & 5V) 8-Port w/o Cables	77000858
Digi Neo Universal PCI (3.3V & 5V) 4-Port w/DB-25M Fan-Out Cables	70001946
Digi Neo Universal PCI (3.3V & 5V) 8-Port w/DB-25M Fan-Out Cables	70001947
Universal PCI (3.3V & 5V) Low Profile RS-232	
Digi Neo Universal PCI (3.3V & 5V) Low Profile w/2-Port DB-9M Fan-Out Cable	70001965
Digi Neo Universal PCI (3.3V & 5V) 1-Port DB-25M Low Profile	77000865
Digi Neo Universal PCI (3.3V & 5V) 2-Port RJ-45	77000849
Digi Neo Universal PCI (3.3V & 5V) 4-Port Low Profile (board only)	77000835
Digi Neo Universal PCI (3.3V & 5V) 8-Port Low Profile (board only)	77000836
Powered (5V) Serial Ports RS-232	
Digi Neo Universal PCI (3.3V & 5V) 2-Port DB-9M	77000851
Digi Neo Universal PCI (3.3V & 5V) 2-Port RJ-45	77000852
Digi Neo Universal PCI (3.3V & 5V) 2-Port RJ-45 Low Profile	77000853
Digi Neo Universal PCI (3.3V & 5V) 4-Port RJ-45	77000856
Digi Neo Cable Upgrade Kit	
Digi Neo 2-Port DB-9M Fan-Out Cable	76000713
Digi Neo HD-68 Cabling Accessories	
4-Port DB-25M Straight Fan-Out Cable	76000522
4-Port DB-9M Straight Fan-Out Cable	76000528
4-Port DB-25F Straight Fan-Out Cable	76000532
4-Port DB-9F Straight Fan-Out Cable	76000530
4-Port DB-25M Straight Connector Box w/Cable	76000524
4-Port DB-9M Straight Connector Box w/Cable	76000560
4-Port RJ-45 Straight Connector Box w/Cable	76000526
8-Port DB-25M Straight Fan-Out Cable	76000523
8-Port DB-9M Straight Fan-Out Cable	76000529
8-Port DB-25F Straight Fan-Out Cable	76000533
8-Port DB-9F Straight Fan-Out Cable	76000531
8-Port DB-25M Straight Connector Box w/Cable	76000525
8-Port DB-9M Straight Connector Box w/ Cable	76000561
8-Port RJ-45 Straight Connector Box w/ Cable	76000527
16-Port 2U 19" Rack w/DB-25M Connectors (use w/two 8-Port Digi Neo cards)	76000587

HARDWARE REQUIREMENTS

Power

Digi Neo 4- and 8-port
- +5V +/- 5%, 20 mA typical, 100 mA maximum
- +12V +/- 5%, 100 mA typical, 150 mA maximum

Digi Neo 2-port
- +5V +/- 5%, 50 mA typical, 100 mA maximum
- +12V +/- 5%, 20 mA typical, 50 mA maximum

System
- 32- or 64-bit PCI slot
- PCI Express slot 1x-16x
- IRQ is assigned

REGULATORY APPROVALS

- FCC Part 15, Class B
- EN55022, Class B
- VCCI Class B
- ICES-003, Class B
- AS3548
- EN55024
- EN60950
- UL 1950
- AS3260
- CSA 22.2, No. 950

ENVIRONMENTAL

- Operating temperature: 0° C to 55° C (32° F to 131° F)
- Storage temperature: -25° C to 85° C (-13° F to 185° F)
- Relative Humidity: 5% to 90%
- Altitude: 0 to 12,000 feet (0 to 3660 meters)
- Air movement: 30 CFM forced

DIGI SERVICE AND SUPPORT

You can purchase with confidence knowing that Digi is here to support you with expert technical support and a strong five-year warranty. www.digi.com/support

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Add Serial Ports to a PC via USB

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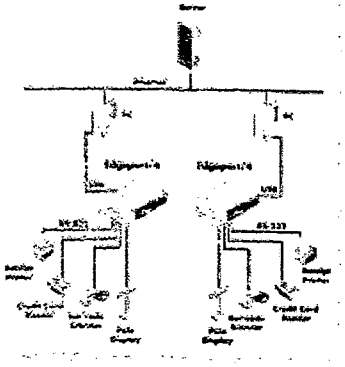
Problem:
Connecting EIA-232 peripheral devices to a POS station with no serial ports

Customer:
Convenience store

Solution:
Edgeport® /4



Larger View

While there are numerous nationwide convenience stores throughout the United States, small, family owned stores also flourish. These smaller stores often cannot justify the expense of sophisticated, pre-packaged retail systems, so finding lower cost alternatives is a common concern.

A small convenience store chain needed to replace its outdated POS systems while protecting its investment in application software and peripheral devices. Each location required two POS stations in the front of the store, and a third PC acting as a server in the back office. The company wanted to build the checkout terminals from the ground up using low-cost PCs and its existing peripheral devices instead of expensive, preconfigured retail systems. They also wanted to have the flexibility to add or remove peripheral devices as connectivity needs changed, without onsite IT support. Finally, they required the ability to easily disconnect devices and move one of the PCs from the store into the back office should the server fail.

Since the new PCs they purchased did not have serial ports, they needed an easy I/O expansion solution to connect a receipt printer, bar-code scanner, credit card reader and pole display at each checkout. The Edgeport/4 USB-to-serial converter made it easy to add serial ports to the PCs, enabling the convenience store to create a low-cost retail system. The Plug and Play solution connected to one of the PC's onboard USB ports, adding four serial ports in minutes. Should the server in the back office go down, moving one of the PCs from the store floor is easy, since disconnecting all the peripheral devices is just a matter of unplugging the Edgeport/4.

Now you can:
Add serial ports to a PC in minutes to easily connect POS devices like

barcode scanners, receipt printers, pole display and credit card readers.

Product solution:

Edgeport/4 product information

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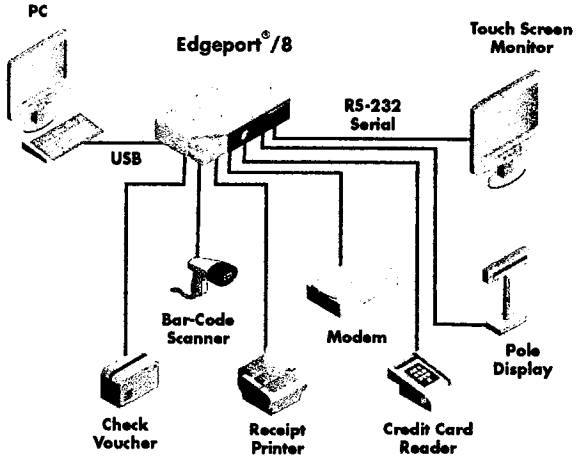
Edgeport®

USB-to-Serial Converters

Edgeport offers an easy out-of-the-box solution for I/O expansion and is available in a wide variety of configurations for maximum flexibility and scalability.

POS Connectivity



Features/Benefits

- > **Add one, two, four, eight, 12 or 16 serial ports to a PC, thin client or server in minutes**
- > **Unmatched operating system support includes Windows NT, Windows 2000, Windows CE, Windows XP and more**
- > **Multi-interface, software selectable MEI, USB PlusPower, industrial, compact and metal models**
- > **Lower total cost of ownership with external, user-installable solution**
- > **Ideal for point-of-sale, mobile computing, industrial automation, medical and more**

Overview

Edgeport USB-to-serial converters offer instant I/O expansion for peripheral device connectivity. An out-of-the-box (external) alternative to PCI cards, Edgeport makes it easy to add serial, USB or parallel ports to a PC, server or thin client in minutes – without opening the chassis, reconfiguring or rebooting the system. EdgeUSB technology, shipping with Edgeport since 1998, makes it possible to use our USB solutions on Windows NT® and Windows NT Embedded systems – an industry first.

Edgeport is available in multiple configurations for maximum flexibility and scalability. Choose from compact form factors for space-prohibitive applications; single port "bump-in-the-cable" solutions for notebook expansion; software-selectable MEI (RS-232/422/485 Multi-Electrical Interface) models to connect any type of serial device to one box; metal enclosures for rugged applications; and DB-9, DB-25 or RJ-45 connectors to meet cabling requirements. Accessories include the Edgeport/E USB Ethernet adapter, rack mount kits, PCI to USB 1.1 card and USB cables.

Feature-rich design, reliability and unmatched operating system support make Edgeport USB-to-serial converters ideal for any mission-critical enterprise application. Integrators and end users around the globe rely on Edgeport for peripheral device connectivity in retail stations, self check-out systems, emergency vehicles, kiosks, ATMs and more.

Digi International makes device networking easy by developing products and technologies that are cost-effective and easy to use. With over 20 million ports shipped worldwide, Digi has been offering the highest levels of performance, flexibility, and quality since 1985.

CERTIFIED USB

FEATURES

- USB 1.0 and 1.1 compatible; backwards compatibility for 2.0
- USB-IF certified
- Plug and Play
- Baud rate: to 230 Kbps per serial port simultaneously
- Automatic port reacquisition
- COM port assignments maintained across reboots
- Full hardware and software flow control
- Tri-state LED displays device status and COM port activity
- No additional IRQ or memory address requirements
- Low power consumption
- Rack mountable
- Hot-swappable
- 1-meter USB cable included (unless otherwise specified)
- Bulk packaging and customized cabling options
- Multiple models available for maximum flexibility and scalability

Edgeport Serial

- 1/2/4/8/12/16 RS-232 serial ports
- DB-9, DB-25, RJ-45 connectors
- Models with onboard USB hub (four ports)

Edgeport Compact

- 2 models with DB-9 connectors
  - 2 RS-232 serial ports
  - 2 RS-232 serial, 2 USB ports
- Captive 2-meter cable for secure connection in rugged environments like mobile computing
- Smaller form factor and lower cost per port than standard Edgeport

Edgeport Industrial

- 1/2/4/8 serial ports with DB-9 connectors
- RS-232, -422 and -422/485 models
- Software selectable RS-232/422/485 MEI models

Edgeport Metal

- 2/4 /8 serial ports with DB-9 connectors
- Aluminum chassis
- Designed for rugged environments like emergency vehicles and restaurant kitchens
- Rack mount brackets for added security

FEATURES CONTINUED

Edgeport Multi-Interface

- 2 models with DB-9 connectors
  - 2 RS-232 serial; 1 parallel printer port
  - 4 USB, 2 RS-232 serial, 1 parallel printer port
- Ideal for workstations or thin clients

Edgeport USB Plus

- 4 powered USB, 2 RS-232 serial ports with DB-9 connectors
- Connect standard USB, powered USB and legacy serial devices to one box
- Cable locking mechanisms ensure secure connection for peripheral devices
- Part of Digi's USB Plus Series (visit website for more information)

Edgeport/E USB Ethernet Adapter

- USB to RJ-45
- Add a PC or laptop to a 10/100Base-T Ethernet in minutes
- Data transfer rates up to 10 Mbps
- Bus-powered

ENVIRONMENTAL

- Operating temperature: 32° F to 131° F (0° C to 55° C)
- Relative humidity: 0% to 95% (non-condensing)

OPERATING SYSTEMS

- Windows® XP, Windows XP Embedded
- Windows NT® 4.0, Windows NT Embedded
- Windows CE
- Windows 2000
- Windows Me
- Windows 98/SE
- Windows 95
- Windows Server™ 2003
- Linux
- Sun Solaris (SPARC)

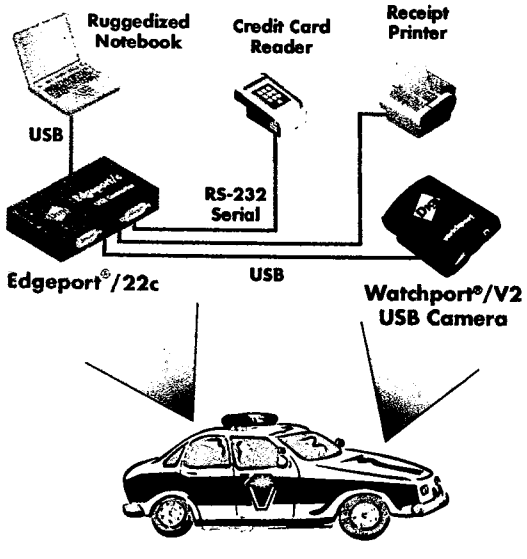
REGULATORY APPROVALS

- FCC Part 15, Class B
- CE
- EN55022
- EN55024
- EN60950
- UL 1950
- CSA 2.2 No. 950
- IEC-950

POWER REQUIREMENTS

- External power supply not required for models without USB ports (USB-powered)
- Models with USB ports (Edgeport/421, 416, 412, 42+) ship with plug-mounted power supply: 120/230VAC 60/50 Hz at 5VDC @ 3 Amps max
- Edgeport/42+ ships with plug-mounted power supply: 120-240VAC 60/50Hz at 24VDC@3 Amps max

Mobile Computing



Edgeport/E, 1, 1i

- Length: 3.15 in (8.00 cm)
- Width: 1.75 in (4.40 cm)
- Height: 0.80 in (2.03 cm)
- Weight: 1.60 oz (45.36 g)

Edgeport/2m, 4m

- Length: 4.30 in (10.92cm)
- Width: 8.00 in (20.32cm)
- Height: 1.36 in (3.45cm)
- Weight: 10.00 oz (311.00 g)

Edgeport/2c, 22c

- Length: 2.38 in (6.04 cm)
- Width: 3.94 in (10.00 cm)
- Height: 1.00 in (2.54 cm)
- Weight: 5.00 oz (141.75 g)

Edgeport/412, 412/DB-25, 416, 416/DB-25, 8/DB-25

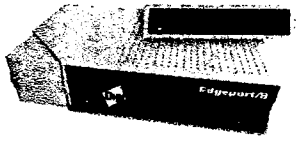
- Length: 5.00* in (12.70 cm)
- Width: 17.00** in (43.118 cm)
- Height: 1.80 in (4.53 cm)
- Weight: 41.30 oz (1170.84 g)

*8.63 in (21.92 cm) with optional mounted power supply tray

** 19.0 in (48.26 cm) with optional rack mount ears

Edgeport/4 DB-25, 42+, 8, 8i, 8s MEI

- Length: 4.35 in (11.05 cm)
- Width: 7.20 in (18.29 cm)
- Height: 1.75 in (4.45 cm)
- Weight: 16.00 oz (453.59 g)



Edgeport/2, 2i, 2+2i, 21, 4, 4i, 4s MEI, 421, 8r

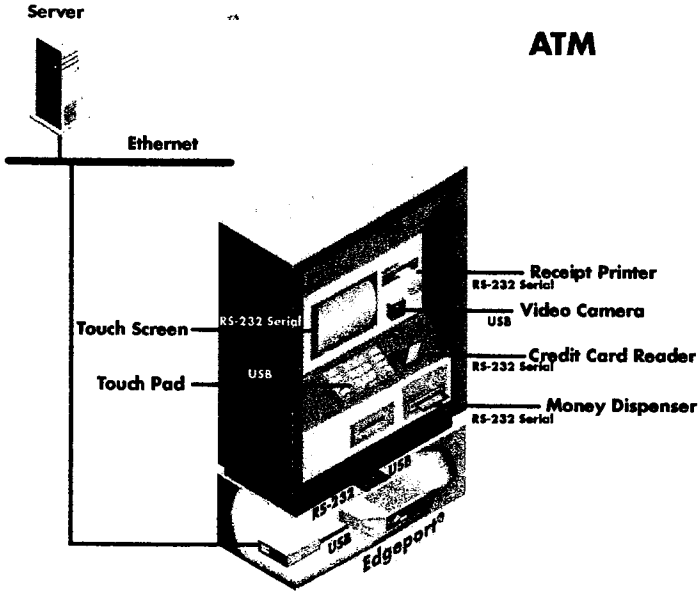
- Length: 4.35 in (11.05 cm)
- Width: 7.20 in (18.29 cm)
- Height: 1.03 in (2.61 cm)
- Weight: 10.00 oz (311.00 g)

Edgeport/8im

- Length: 4.75 in (12.07 cm)
- Width: 8.00 in (20.32 cm)
- Height: 2.00 in (5.08 cm)
- Weight: 24.00 oz (680.39 g)

Applications

- Retail/Point-of-Sale
- Mobile Computing
- Medical
- Financial
- Hospitality
- Industrial Automation



Features/Specifications

MODEL.....PART NUMBERS

Model	North America	International
Edgeport Serial		
Edgeport/1 (1 serial DB-9)	301-1001-11	301-1001-11
Edgeport/1 25-Unit Bulk Pack (25 ea. 301-1001-11)	301-1001-21	301-1001-21
Edgeport/1 100-Bulk Pack (100 ea. 301-1001-11)	301-1001-22	301-1001-22
Edgeport/1 Captive Cable (1 serial DB-9, attached 2m USB cable)	301-1001-15	301-1001-15
Edgeport/2 (2 serial DB-9)	301-1000-02	301-1000-02
Edgeport/4 (4 serial DB-9)	301-1000-04	301-1000-04
Edgeport/4/DB-25 (4 serial DB-25)	301-1016-01	301-1016-01
Edgeport/412 (4 USB, 12 serial DB-9)	301-1004-12	301-2004-12
Edgeport/412/DB-25 (4 USB, 12 serial DB-25)	301-1016-12	301-2016-12
Edgeport/416 (4 USB, 16 serial DB-9)	301-1000-10	301-2000-10
Edgeport/416/DB-25 (4 USB, 16 serial DB-25)	301-1016-16	301-2016-16
Edgeport/8 (8 serial DB-9)	301-1002-08	301-1002-08
Edgeport/8/DB-25 (8 serial DB-25)	301-1016-08	301-1016-08
Edgeport/8r (8 serial RJ-45)	301-1002-14	301-1002-14
Edgeport Compact		
Edgeport/2c (2 serial DB-9, captive 2m USB cable)	301-1003-10	301-1003-10
Edgeport/22c (2 serial DB-9, 2 USB, captive 2m USB cable)	301-1003-30	301-1003-30
Edgeport Industrial		
Edgeport/1i (1 RS-422/485 serial DB-9)	301-1001-31	301-1001-31
Edgeport/2i (2 RS-422/485 serial DB-9)	301-1000-12	301-1000-12
Edgeport/2+2i (2 RS-232 serial, 2 RS-422 serial DB-9)	301-1022-04	301-1022-04
Edgeport/4i (4 RS-422 serial DB-9)	301-1000-24	301-1000-24
Edgeport/8i (8 RS-422 serial DB-9)	301-1000-28	301-1000-28
Edgeport/4s MEI (4 RS-232/422/485 serial DB-9 software selectable)	301-1000-94	301-1000-94
Edgeport/8s MEI (8 RS-232/422/485 serial DB-9 software selectable)	301-1002-98	301-1002-98
Edgeport Metal		
Edgeport/2m (2 serial DB-9, metal chassis)	301-1000-80	301-1000-80
Edgeport/4m (4 serial DB-9, metal chassis)	301-1000-81	301-1000-81
Edgeport/8im (8 RS-422 serial DB-9, metal chassis)	301-1000-85	301-1000-85
Edgeport Multi-Interface		
Edgeport/21 (2 serial DB-9, 1 parallel)	301-1000-21	301-1000-21
Edgeport/421 (4 USB, 2 serial DB-9, 1 parallel)	301-1004-21	301-2004-21
Edgeport USB Plus		
Edgeport/42+ (4 powered USB, 2 serial DB-9)	301-1001-42	301-2001-42
Accessories		
Edgeport/E (USB Ethernet adapter)	301-1050-01	301-1050-01
USB 1.1 Upgrade Kit (PCI to USB 1.1 card)	301-1101-01	301-1101-01
1-Meter USB Cable (A to B USB cable, 3.3 ft)	301-9000-01	301-9000-01
2-Meter USB Cable (A to B USB cable, 6.6 ft)	301-9000-07	301-9000-07
3-Meter USB Cable (A to B USB cable, 9.8 ft)	301-9000-06	301-9000-06
4-Meter USB Cable (A to B USB cable, 13 ft)	301-9000-10	301-9000-10
5-Meter USB Cable (A to B USB cable, 16.4 ft)	301-9000-02	301-9000-02
USB Repeater/Extender Cable (A to A extender, 16.4 ft)	301-9002-01	301-9002-01
USB to Parallel Printer Cable (1.8 m, 6 ft)	301-9006-01	301-9006-01
Rack Mount Kit (19" shelf)	301-9001-01	301-9001-01
Small Shelf Mount Bracket (mounts Edgeport/4-sized boxes to wall or shelf)	301-9003-01	301-9003-01
Large Shelf Mount Bracket (mounts Edgeport/8-sized boxes to wall or shelf)	301-9004-01	301-9004-01

Serial ports are RS-232 unless otherwise specified.

Bulk packs include one copy of software and documentation with limited use reproduction license.

CERTIFIED USB

Designed for Microsoft® Windows® XP

Microsoft® Windows® Embedded Partner

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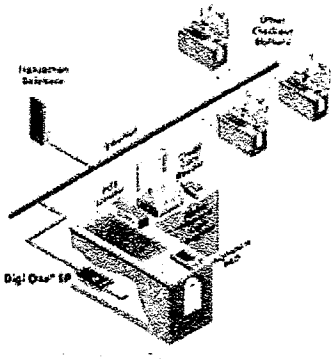
Network-Enable POS Peripherals

Problem:
Network-enabling peripheral devices for existing POS systems

Customer:
Consumer electronics retailer

Solution:
Digi One® SP



Larger View

Retailers incur significant costs from the handling and retrieval of credit card receipts. Finding a way to reduce these costs, while protecting themselves against credit card fraud, was a key initiative for this consumer electronics and appliances retailer.

This retailer was scheduled to relocate its checkout terminals to improve the in-store shopping experience. This was the perfect time to upgrade the existing checkout systems to include electronic signature capture devices. These devices would allow the retailer to easily retrieve receipts and the corresponding signatures, thus streamlining transaction processing and minimizing the cost of fraudulent charge-backs. The retailer wanted to perform this upgrade without impacting the existing POS software application investment.

The Digi One SP device server connected the signature pads to each store's transaction database simply by utilizing the in-store network. Digi's patented RealPort® software allows Ethernet connected serial ports to be used in exactly the same way as locally connected serial ports, without any changes to existing application software. This enabled the electronic signature capture devices to be seamlessly integrated into the POS system. This cost-effective and reliable solution protected the existing POS infrastructure, streamlined credit card transactions and increased customer convenience.

Now you can:
Easily network-enable new POS devices without impacting existing POS infrastructure.

Product solution:
Digi One SP product information

Related Links
- Digi One SP product information
- Retail/POS application guide

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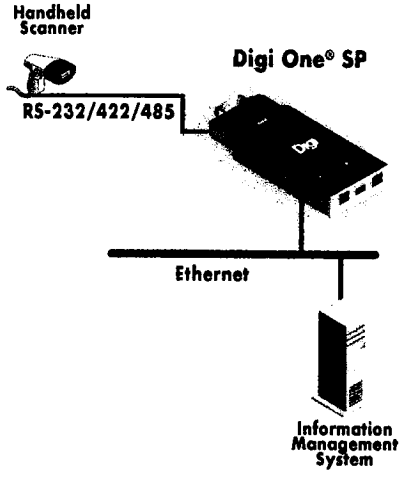
35

Digi One® SP

Device Server

The Digi One SP device server is designed for standard serial-to-Ethernet connectivity. It is ideal for applications requiring simple and easy-to-use data communications.



Features/Benefits

- > Easy configuration using installation CD
- > Patented Digi RealPort® technology for COM or TTY port control and management
- > TCP/UDP Socket Services for broad device connectivity and application use
- > Auto-connect the serial device to networked server using raw, Telnet, Rlogin
- > Reverse Telnet for easy access of serial devices from network
- > Easy configuration through web interface (HTTP)
- > Switch selectable RS-232/422/485 for simple interfacing to any type of serial device
- > Modem emulation allows support for devices designed only for modem communications

Overview

The Digi One SP device server allows any device with a serial port to easily connect to the Ethernet. Its compact design delivers cost-effective performance and capability in one of the smallest form factors available.

Part of Digi's broad device server offering, the Digi One SP delivers standard serial-to-Ethernet connectivity and is ideal for serial tunneling or applications where COM ports or TCP/UDP Socket functionality is needed. Serial tunneling allows two previously non-networked and isolated devices to easily communicate information and operate with existing installed software applications on an Ethernet network, eliminating the long serial cable. The Digi One SP also works with software applications using TCP/UDP Sockets, allowing a serial device to interoperate with the software applications without the need to install a driver.

The Digi One SP is easy to install locally or remotely through a variety of IP addressing methods, including DHCP, RARP, and ARP-Ping. Included on the installation CD is an application that will automatically detect all Digi One SP devices on your network. A quick-start guide is also provided to make network configuration easy and hassle-free.

Digi International makes device networking easy by developing products and technologies that are cost-effective and easy to use. With over 20 million ports shipped worldwide, Digi has been offering the highest levels of performance, flexibility, and quality since 1985.

Features/Specifications

FEATURES

- RS-232/422/485 switch selectable
- DB-9M serial connector
- Baud rates up to 230 Kbps
- Full modem and hardware flow control
- Modem emulation
- 10/100Base-T Ethernet support
- TCP/UDP Socket Services
- UDP Multicast
- Telnet and Reverse Telnet
- DHCP/RARP/ARP-Ping for IP address assignment
- HTTP configuration
- Patented RealPort technology for COM and TTY ports
- LED status for link and power

OPERATING SYSTEMS

RealPort drivers for COM/TTY support

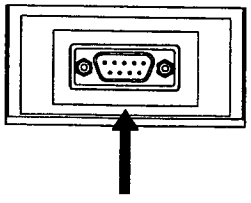
- AIX
- HP-UX
- Linux
- Windows® 98/98SE
- Windows ME
- Windows XP
- Windows 2000
- Windows Server™ 2003
- Windows NT®
- SCO® OpenServer™
- SCO UnixWare™
- Solaris™ (Intel)
- Solaris (SPARC)

DIMENSIONS

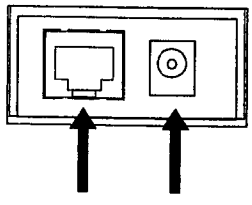
- Length: 3.70 in (9.04 cm)
- Width: 1.72 in (4.30 cm)
- Depth: 0.93 in (2.30 cm)
- Weight: 2.29 oz (65.00 g)

REGULATORY APPROVALS

- FCC Part 15 Subpart B, Class A
- EN55022, Class A
- EN55024
- EN61000-3-2,3
- UL60950
- CAN/CSA C22.2 No.60950
- EN60950



DB-9M Serial



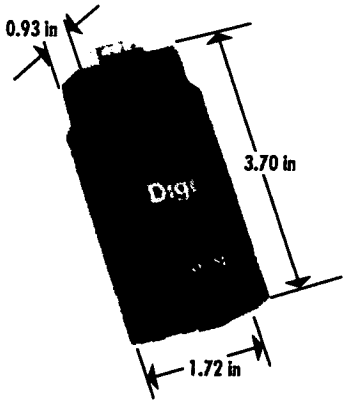
Ethernet **Power**

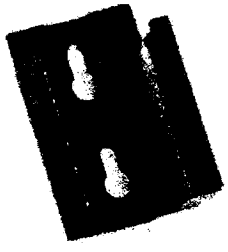
ENVIRONMENTAL

- Operating temperature: 10° C to 45° C (50° F to 113° F)
- Relative humidity: 5% to 90% (non-condensing)

POWER REQUIREMENTS

- Power supply included
  North America
  12VDC/.5A max out; 120VAC in (wall mount)
  International
  12VDC/.5A max out; 100-240VAC in (small brick)
- Product will accept 9-30VDC
- Power Consumption
  - Typical: 4W
  - Max: 6W
- Surge Protection (with included power supply)
  - 4 kV burst (EFT)
  - 2 kV surge





Wall Bracket

MODEL . . . . . PART NUMBERS

Model	North America	International
Digi One SP	70001851	70001852
Accessories		
Wall Mount Bracket	76000662	76000662
DB-9F to DB-9F Crossover Cable (4-ft.)	76000642	76000642
Replacement Power Supply (wall mount)	76000737	N/A
Replacement Power Supply (small brick)	76000654	76000654

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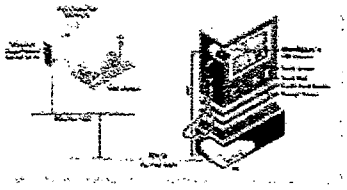
Reduce Gas Station Drive-Offs

Problem:
Customer drive-offs at gas stations

Customer:
Pay-at-the-pump manufacturer

Solution:
Watchport®/V2 USB camera



Larger View

For many gas station owners, the pay-at-the-pump system gives new negative meaning to the term "self service." While customer convenience is increased, so is the potential for customer driveoffs, or leaving the gas pump without paying.

A gas pump manufacturer with an installed base of 1500 systems in the southern United States needed a solution for customer drive-offs, a problem which caused its larger customers up to $1,000,000 in losses per month. The manufacturer wanted a cost-effective surveillance solution to capture a photo of the license plate and driver at the beginning of each transaction, since these elements are required in order to prosecute the offender.

The manufacturer evaluated the Watchport/V2 USB camera and found its low-light sensitivity, high resolution and ease of use to be exactly what they needed. The camera is highly customizable, with a replaceable lens and a removable chassis, and can easily be integrated into a gas pump enclosure since it is USB-attached and does not require an external power supply.

The manufacturer worked with Digi to write a software package that would trigger the Watchport/V2 to snap a photo when a transaction was initiated at the pump by selecting "Pay Inside" as the payment option. If the transaction was not completed within a given time frame, the image would be uploaded to the store server and saved for identification purposes.

Now you can:
Add surveillance functionality to a pay-at-the-pump system or other kiosk without a substantial technology investment.

Product solution:
Watchport/V2 USB camera product information

Related Lin
•Watchport/V product infor
•Retail/POS a guide

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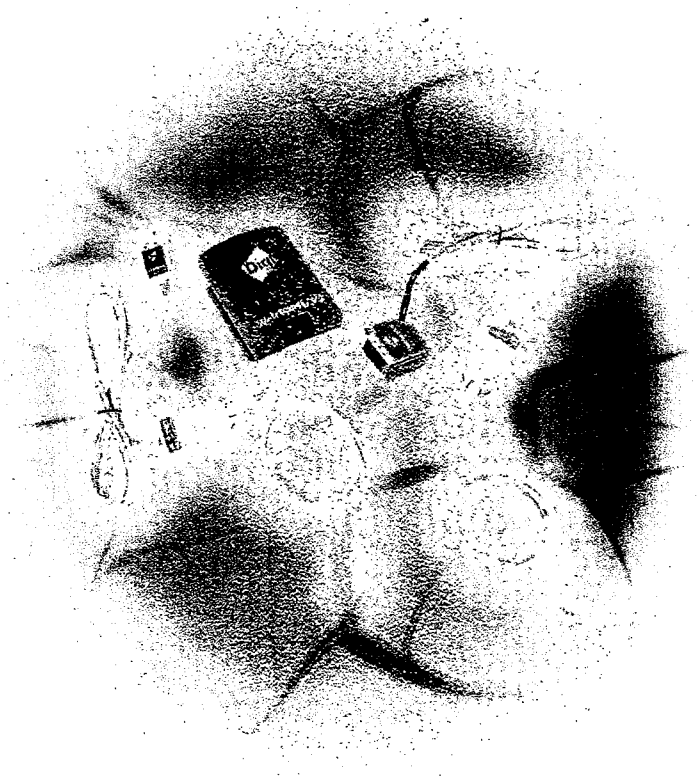
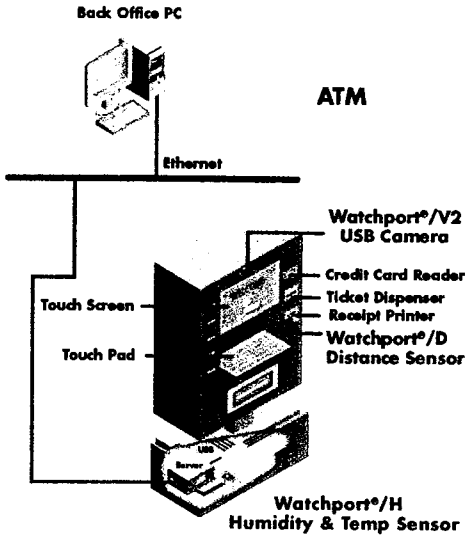


Watchport® Series

USB Environmental Monitoring Solutions

Create a made-to-order asset monitoring system with USB sensors and vision components.



Features/Benefits

- > Pre-empt system failures, extend life of equipment and reduce downtime in kiosks, ATMs, server rooms, warehouses and more
- > A' la carte product selection allows total customization
- > Easy to install and configure
- > Free Watchport Manager software sends alerts for remote monitoring
- > Extend distance between sensor and host with CAT5 UTP cable
- > Watchport/V2 USB camera offers exceptional low light sensitivity
- > Microsoft® Windows® compatible

Overview

The Watchport Series is the first complete line of Plug and Play USB devices for environmental monitoring. Vision components for surveillance, including the Watchport/V2 USB camera and Watchport motion detection software, may be paired with sensors to measure proximity, humidity, temperature, water, distance, acceleration or tilt to create a fully customized monitoring system. The Watchport Series can reduce total cost of ownership, extend life of equipment and reduce system downtime in mission-critical environments like kiosks, ATMs, server rooms, warehouses, data centers and more.

Watchport Manager software, included with each solution, provides centralized device status, supports data logging to preserve historical information and enables the easy integration of multiple sensors without additional software development. For remote monitoring applications, Watchport Manager can provide alerts via email, pager and computer screen, or send an event trigger to an external application.

The application possibilities are almost endless. Monitor temperature and humidity levels in a server room; detect the presence of water in an ATM; activate an information kiosk monitor when a shopper is nearby; or protect confidential information by automatically ending a session at a human resources kiosk when the user is no longer detected. For added flexibility, multiple Watchport devices may be configured and remotely monitored on an IP network with AnywhereUSB®.

Digi International makes device networking easy by developing products and technologies that are cost-effective and easy to use. With over 20 million ports shipped worldwide, Digi has been offering the highest levels of performance, flexibility, and quality since 1985.

Watchport Sensors | Features and Specifications

FEATURES

- USB 1.0 and 1.1 compatible; backwards compatibility for 2.0
- Includes USB base, RJ-45 sensing device and Watchport Manager software
- API available for application software development
- Remotely monitor and configure multiple sensors on an IP network with AnywhereUSB/5

Watchport Manager Software

- Centralized device status
- Historical data logging
- User-defined thresholds
- Pager, email and onscreen alarms for remote monitoring
- Easy integration of multiple sensors without additional software development
- Minimizes into system tray to save screen space

Watchport/H Humidity & Temperature Sensor

- Collects both relative humidity (RH) and temperature data
- Temperature compensated RH readings
- ASCII command interface
- Maximum reading rate: 20 per second
- Temperature accuracy: +/- 3.6° F (+/- 2° C) at -40° F to +14° F (-40° C to -10° C) and +/- 0.9° F (+/- 0.5° C) at 14° F to 185° F (-10° C to +85° C)
- RH accuracy: +/- 5% at 0-90% non-condensing; +/- 8% over 90%
- RH stability: +/- 1% RH (typical) at 50% RH in 5 years
- Power consumption: 15 mA (normal), 1.0 mA (suspend mode)
- Maximum CAT5 UTP cable length: 500 ft (152.46 m)

Watchport/P Proximity Sensor, Watchport/D Distance Sensor

- Photo-electric sensor with hardware controlled sensitivity
- Enables system event triggering with Watchport Manager
  - Automatic log-off
  - Automatic system lock
  - Run user-selectable files such as screen savers, batch files, scripts and executables
- Detection range 1.6 to 4.9 ft (0.5 to 1.5 m)
- Maximum reading rate: 3 per second
- Maximum switching frequency: 100 Hz
- Response delay: ≤5.0 ms (typical)
- Power consumption: 70 mA (max)
- Maximum CAT5 UTP cable length: 500 ft (152.46 m)

Watchport/T Temperature Sensor

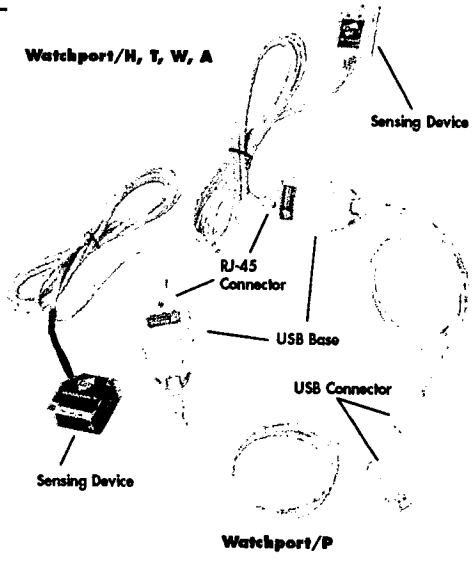
- ASCII command interface
- Maximum reading rate: 20 per second
- Temperature accuracy: +/- 3.6° F (+/- 2° C) at -40° F to +14° F (-40° C to -10° C) and +/- 0.9° F (+/- 0.5° C) at 14° F to 185° F (-10° C to +85° C)
- Temperature resolution: 0.1° C
- Power consumption: 15 mA (normal), 1.0 mA (suspend mode)
- Maximum CAT5 UTP cable length: 500 ft (152.46 m)

Watchport/W Water Detector

- 2 gold plated pins detect wetness on a non-conductive surface
- Binary output with "Wet" or "Dry" readings
- Waterproof enclosure
- Maximum reading rate: 5 per second
- Power consumption: 15 mA (normal), 1.0 mA (suspend mode)
- Maximum CAT5 UTP cable length: 1,000 ft (304.8 m)

Watchport/A Accelerometer

- Dual access accelerometer
- Measures dynamic acceleration or tilt
- Acceleration from -2g to 2g



OPERATING SYSTEMS

- Windows XP, Windows XP Embedded
- Windows NT® 4.0, Windows NT Embedded
- Windows CE
- Windows 2000/Me
- Windows 98/SE
- Windows 95
- Windows Server™ 2003

REGULATORY APPROVALS

- FCC Part 15, Class B
- CE
- EN55022
- EN55024
- EN60950
- UL 1950
- CSA 2.2 No. 950
- IEC-950

ENVIRONMENTAL

USB Base

- Operating temperature: 32° F to 149° F (0° C to 65° C)
- Relative humidity: 0% to 95% (non-condensing)

Sensing Device

- Operating temperature: -40° F to +185° F (-40° C to +85° C)
- Relative humidity: 0% to 95% (non-condensing)

POWER REQUIREMENTS

- USB-powered (no external power supply required)

DIMENSIONS

USB Base

- Length: 3.15 in (8.00 cm)
- Width: 1.75 in (4.45 cm)
- Height: 0.80 in (2.03 cm)
- Weight: 3.00 oz (85.05 g)

Sensing Device (Watchport/H, T, W)

- Length: 2.12 in (5.39 cm)
- Width: 1.19in (3.02 cm)
- Height: 0.69 in (1.75 cm)
- Weight: 3.00 oz (85.05 g)

Sensing Device (Watchport/P)

- Length: 3.15 in (8.00 cm)
- Width: 1.75 in (4.45 cm)
- Height: 0.80 in (2.03 cm)
- Weight: 3.00 oz (85.05 g)

Sensing Device (Watchport/A)

- Length: 2.12 in (5.39 cm)
- Width: 1.19 in (3.02 cm)
- Height: 0.69 in (1.75 cm)
- Weight: 3.00 oz (85.05 g

Sensing Device (Watchport/D)

- Length: 1.75 in (4.45 cm)
- Width: 0.74 in (1.88 cm)
- Height: 0.85 in (2.16 cm)
- Weight: 3.00 oz (85.05 g)

FEATURES

Watchport/V2

- Ideal for photo ID badging, kiosks, ATMs, access control and general surveillance
- Only USB camera of its kind with Windows NT drivers
- Motion detection software available to create cost-effective remote monitoring system
- Low light sensitivity: <1 lux
- Adjustable resolutions
  - 1280 x 960 (software enhanced)
  - 640 x 480
  - 352 x 288
  - 320 x 240
  - 176 x 144
  - 160 x 120
  - 128 x 96
- Maximum frame rates by resolution
  - 30 fps at all resolutions
- Removable 4.9 mm lens; F:2.0 adjustable
- Optional lens pack available
  - 3 mm wide angle (green)
  - 8 mm close-up (red)
  - 12 mm telephoto (blue)
- Optional mounts
  - Wall mount
  - Clamp mount
- Exposure controls
  - Manual and automatic gain and shutter control,
  - Automatic white balance (AWB)
  - Manual color balance
  - Color saturation
- Color formats: 16.8 million TrueColor (24 bit RGB), YUY2, UYVY
- Motion JPEG compression
- Sensor: color CCD
- Scan frequencies: 60, 50, 30, 25, 15, 12.5, 7.5, 6.25 and 4 Hz
- Shutter rate controls: 1/4 second to over 1/30,000 second

STANDARDS AND PROTOCOLS

- Microsoft DirectShow WDM
- Microsoft Video for Windows
- TWAIN

POWER REQUIREMENTS

- USB-powered (no external power supply required)

ENVIRONMENTAL

- Operating temperature: 32° F to 149° F (0° C to 65° C)
- Relative humidity: 0% to 95% (non-condensing)

OPERATING SYSTEMS

- Windows XP, Windows XP Embedded
- Windows NT 4.0, Windows NT Embedded
- Windows 2000/Me
- Windows Server 2003

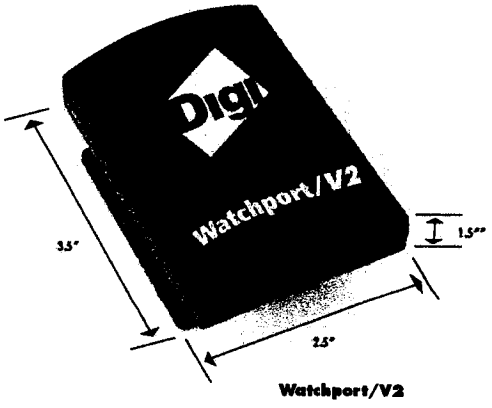
DIMENSIONS

Watchport/V2

- Length: 3.5 in (9.0 cm)
- Width: 2.5 in (6.4 cm)
- Height: 1.5 in (3.8 cm)
- Weight: 4.5 oz (127.6 g)

REGULATORY APPROVALS

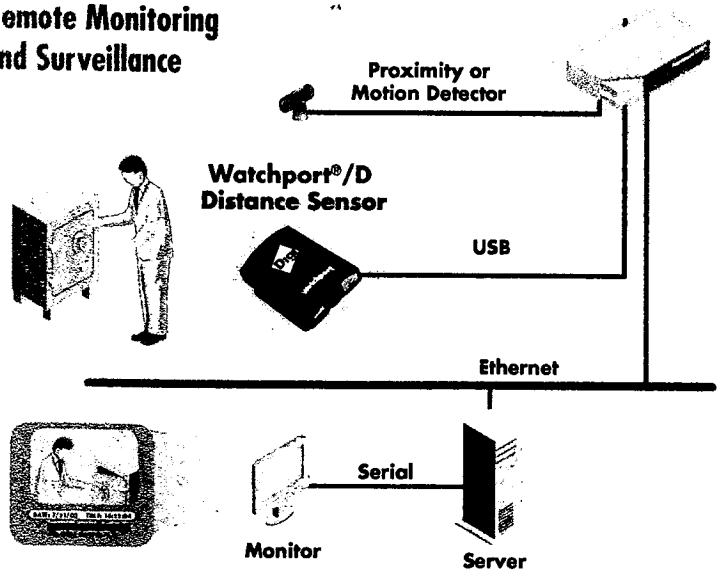
- FCC Part 15, Class B
- CE
- EN55022
- EN55024
- EN60950
- UL 1950
- CSA 2.2 No. 950
- IEC-950



Watchport/V2

AnywhereUSB®

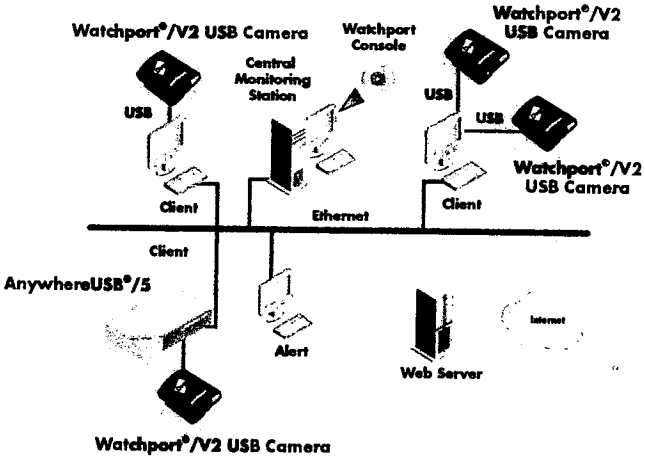
Remote Monitoring and Surveillance



Create a Low-Cost Surveillance System with Watchport/V2 and Motion Detection Software

Digi makes it easy to create a remote monitoring system to protect an office, warehouse, data room, gas pump, cash register, parking lot or other property. Watchport/V2 plus Watchport Sentry (single camera per host) or Watchport Console (multiple cameras per host) motion detection software offers a cost-effective alternative to CCTV and other remote surveillance solutions.

- Sensitivity controls and user-defined masks eliminate spurious motion detection; compensates for changes in lighting
- Instant playback allows user to review motion captured on a given day
- Automatic zoom
- Automated image archiving or deletion
- Motion map feature displays summary of motion over time
- Time lapse or webcam mode allows user to schedule operating periods for specific times and days of the week
- Name, time and date stamping of recorded images
- Image encryption to detect tampering



MODEL.....PART NUMBERS

Model	North America	International
Watchport/H (Humidity & Temperature Sensor)	301-1141-01	301-1141-01
Watchport/P (Proximity Sensor)	301-1143-01	301-1143-01
Watchport/T (Temperature Sensor)	301-1144-01	301-1144-01
Watchport/W (Water Detector)	301-1145-01	301-1145-01
Watchport/D (Distance Sensor)	301-1146-01	301-1146-01
Watchport/A (Accelerometer)	301-1147-01	301-1147-01
Watchport/V2 (USB camera)	301-9010-01	301-9010-01
Watchport/V Lens Package (optional)	301-9015-01	301-9015-01
Watchport/V Wall Mount (optional)	301-9018-01	301-9018-01
Watchport/V Clamp Mount (optional)	301-9019-01	301-9019-01
Watchport Sentry Software License (single camera per host)	301-9026-01	301-9026-01
Watchport Console Software License (2 cameras per host)	301-9027-01	301-9027-01
Watchport Console Plus Software License (4 cameras per host)	301-9028-01	301-9028-01
Watchport Console Extra License (for additional Console connections)	301-9029-01	301-9029-01

Additional Watchport Sensors in development. Contact us for details.

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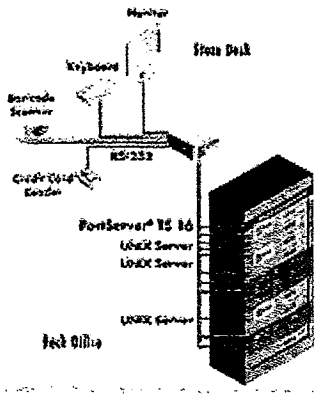
Manage Inventory and POS Checkouts

Problem:
Effectively managing inventory and checkout systems

Customer:
Entertainment retailer

Solution:
PortServer® TS 16



Larger View

In the fast moving retail business for movies, music, video games and books, store owners must have not only the most up-to-date product selection on hand, but also a low maintenance, reliable IT infrastructure to manage inventory and run an efficient checkout system. With bookstores and video rental stores on practically every corner, the need to maintain accurate inventory and operate efficient checkout systems is essential to ensure customer satisfaction and build client loyalty.

A major entertainment retailer with 144 locations nationwide needed an IT solution to upgrade its checkout and inventory systems. Reliability and minimum system downtime were key requirements in the system upgrade. The company used a SCO OpenServer platform and needed an easy way to connect the terminals in the checkout lanes and information desks. It was imperative that data transfer between the front and back of store was always in sync, so that inventory was accurate at all times.

The PortServer TS 16, a terminal server with 16 serial ports, integrated easily into the rack-mounted server in the back office to create an elegant device networking solution. Each terminal in the checkout lanes and at the information desks is connected with EIA-232 serial cables to the PortServer TS 16. The bar-code scanners, credit card readers, receipt printers and other POS peripheral devices are attached directly to the terminals. The new solution simplified not only the checkout software implementation, but also the data transfer since all the information is now multiplexed to a single host connection.

Now you can:
Implement a low maintenance IT infrastructure to ensure seamless information flow between inventory and checkout systems.

Related Linl
•PortServer T information
•Retail/POS a guide

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Product solution:

PortServer TS 16 product information

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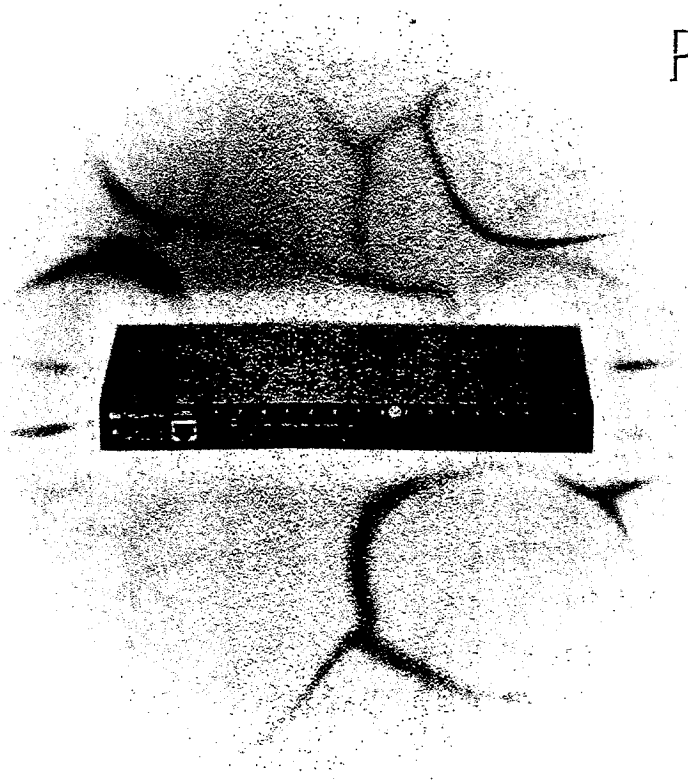
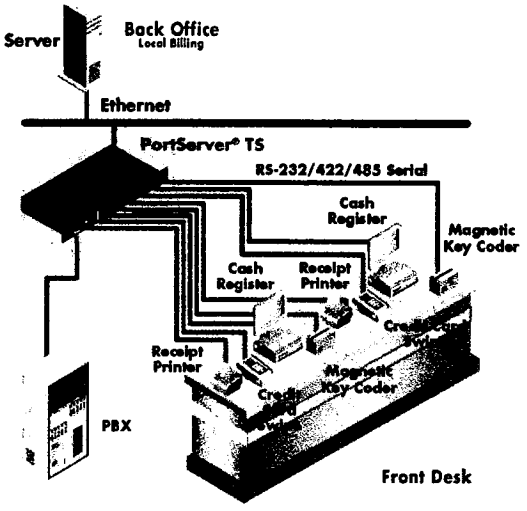


PortServer® TS 8/16

Terminal Server

PortServer TS 8 and PortServer TS 16 deliver reliable and cost-effective RS-232/422/485 serial-to-Ethernet connectivity, with a robust feature set for efficient device management.



Features/Benefits

- > **Cost-effective eight- or 16-port RS-232/422/485 serial-to-network connectivity**
- > **SSH v2 ensures encrypted connections**
- > **RealPort with encryption provides local serial port functionality and SSL-based protection for additional security**
- > **Ports may be shared between multiple hosts running different operating systems**
- > **Supports SNMP for easy network management**
- > **Supports RADIUS authentication and accounting**
- > **NEBS Level III certified in a system**

Overview

The PortServer TS family of terminal servers delivers intelligent, reliable and cost-effective RS-232/422/485 serial-to-Ethernet connectivity. PortServer TS 8 (8 serial ports) and PortServer TS 16 (16 serial ports) support data center console port management applications, as well as property management, point-of-sale, data aquisition, industrial automation, power utilities, travel reservations and other applications requiring serial-to-IP connectivity.

PortServer TS solutions offer the most robust feature set on the market. Digi's patented RealPort® technology makes it possible to establish a connection between the host and a networked serial device by creating a local COM or TTY port on the host computer, allowing existing software applications to work without modification. Incoming/outgoing Rlogin and Telnet sessions on each port give equipment and system administrators a high level of control over networked serial devices. Other features include Secure Shell (SSH v2) encryption to protect against unauthorized network monitoring or "sniffing," and port buffering, which allows network administrators to easily capture vital information for troubleshooting.

A variety of management tools are supplied with the PortServer TS product family, including Digi Port Authority-Remote and the Digi web management console. Functions including IP assignment, diagnostics and guided configuration make the product easy to install and use.

Digi International makes device networking easy by developing products and technologies that are cost-effective and easy to use. With over 20 million ports shipped worldwide, Digi has been offering the highest levels of performance, flexibility, and quality since 1985.

Features/Specifications

FEATURES

- 10/100 Mbps Ethernet
- RS-232 serial ports; MEI versions have software selectable RS-232/422/485 ports
- 8/16 ports
- DHCP, RARP and ARP-Ping
- HTTP for easy browser configuration
- Telnet, Reverse Telnet, Rlogin and auto-connect
- Up to 9 Telnet or Rlogin sessions per port
- TCP and UDP Socket support
- Password access
- PPP (PAP & CHAP)
- Line Printer Daemon (LPD)
- SNMP (read and write)
- DPA-Remote for easy monitoring
- Easy firmware upgrades via TFTP
- Save/Restore configuration to host
- 230 Kbps throughput on all ports
- Full modem and hardware flow control
- RADIUS
- SSH v2 available on all ports simultaneously
- Port buffering up to 64 Kbps per port
- Select models include mounting brackets

PortServer TS 16 Enterprise

- Rack mountable unit with all power/serial connectors on front panel

OPERATING SYSTEMS

- AIX
- HP-UX
- Linux
- Windows® XP, Windows 2000, Windows Server™ 2003, Windows 98, Windows ME, Windows NT®
- NCR UNIX MP-RAS
- SCO® OpenServer™
- SCO UnixWare™
- Solaris™(Intel)
- Solaris (SPARC)

DIMENSIONS

PortServer TS 8

- Length: 8.30 in (21.08 cm)
- Width: 3.70 in (9.40 cm)
- Depth: 1.00 in (2.54 cm)
- Weight: 3.05 lbs (1.39 kg)

PortServer TS 16

- Length: 13.40 in (34.04 cm)
- Width: 6.60 in (16.76 cm)
- Depth: 1.40 in (3.60 cm)
- Weight: 5.30 lbs (2.40 kg)

PortServer TS 16 Rack, PortServer TS 8/16 MEI

- Length: 16.80 in (42.70 cm)
- Width: 6.60 in (16.76 cm)
- Depth: 1.60 in (4.06 cm)
- Weight: 7.05 lbs (3.20 kg)

REALPORT SOFTWARE

- Local emulation of UNIX TTY and Microsoft COM ports
- Transparent printing under UNIX
- Single TCP/IP connection per PortServer reduces Ethernet traffic and minimizes host CPU utilization
- RealPort with encryption provides security

REGULATORY APPROVALS

PortServer TS 8, PortServer TS 8/16 MEI

- FCC Part 15, Subpart B, Class A
- EN55022, Class A
- EN55024
- EN61000-3-2,3
- UL60950
- CAN/CSA C22.2 No. 60950
- EN60950

PortServer TS 16

- FCC Part 15, Subpart B, Class B
- EN55022, Class B
- EN55024
- EN61000-3-2,3
- UL60950
- CAN/CSA C22.2 No. 60950
- EN60950

POWER REQUIREMENTS

PortServer TS 8

- External, 100-240VAC, 50/60 Hz, 6 W typ.

PortServer TS 16 desktop and rack, PortServer TS 16 MEI

- Internal, 100-250VAC, 50/60 Hz, 12 W typ.

PortServer TS 16 48VDC

- Internal 36-72VDC, 12 W typ.

PortServer TS 8 48VDC

- External 36-72VDC, 6 W typ.

ENVIRONMENTAL

- Operating temperature: 0° C to 55° C (32° F to 130° F)
- Relative humidity: 5% to 95% (non-condensing)

DIGI PORT AUTHORITY-REMOTE

- Remote monitoring application
- Ports status
- Ethernet status

MODEL.....PART NUMBERS

Model	North America	International
PortServer TS 8 - RS-232	70001734	70001741
PortServer TS 8 MEI - RS-232/422/485, 19" rack mountable	70001979	70001981
PortServer TS 8, 48VDC - RS-232, DC power	70001885	70001885
PortServer TS 16 - RS-232	70001733	70001738
PortServer TS 16 MEI - RS-232/422/485, 19" rack mountable	70001978	70001980
PortServer TS 16 Rack - RS-232, 19" rack mountable	70001742	70001743
PortServer TS 16 Rack, 48VDC - RS-232, DC power, 19"/23" rack mountable	70001747	70001747
PortServer TS 16 Enterprise Rack - RS-232, 19" rack mountable	70001928	70001929

See http://www.digi.com for additional cable converters.

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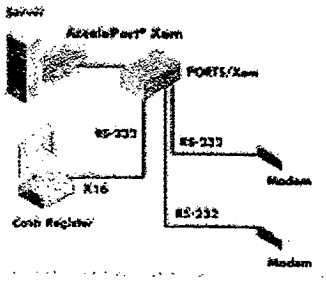
Integrate Multiple OS's in a POS System

Problem:
Using multiple operating systems in a POS architecture

Customer:
Commercial paint supply retailer

Solution:
AccelePort® Xem



Larger View

Updating a POS system often means migrating to a new Operating System (OS). Finding a solution with broad OS support was a key initiative for a commercial paint supply retailer in the Northeast United States. who was planning a system upgrade, including a new OS deployment.

Each location had multiple PCs throughout the store: at the front counter for order entry; at the back of the store where paint mixing orders are filled; and at multiple checkout terminals. They needed a reliable solution for networking the PCs to the store's central server, which was connected via a WAN to its headquarters' main server. To complicate matters, several different OS's were being used at the different locations. System administrators planned to standardize on one OS, but had not finalized the timeline or even the platform they would use. They had narrowed their decision to Microsoft® Windows NT®, Windows® 2000, Linux® and SCO®. They wanted to test a new networking solution that was compatible with each OS, since multiple ones would be used indefinitely.

The AccelePort Xem system offered an easy solution for connecting their POS terminals. The product's broad OS support was a key factor in the decision, as it is compatible with all the platforms being used by the company today. The flexible system also features a host adapter card, which was installed inside each store's server, and a compact Digi PORTS module that provides access to eight or 16 serial ports to connect each POS terminal. The retailer needed a solution that would allow for future growth, and the AccelePort Xem did just that – as many as 64 ports could be added to one system as connectivity needs changed over time.

Now you can:
Easily network all of your retail locations, even if multiple operating systems are used at different stores.

Related Linl
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Product solution:

AccelePort-Xem product information

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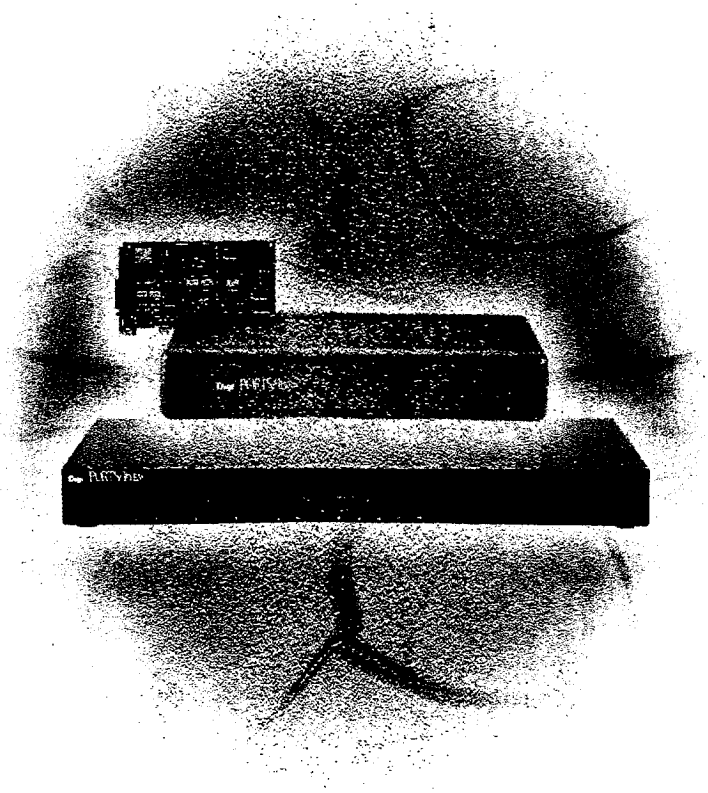
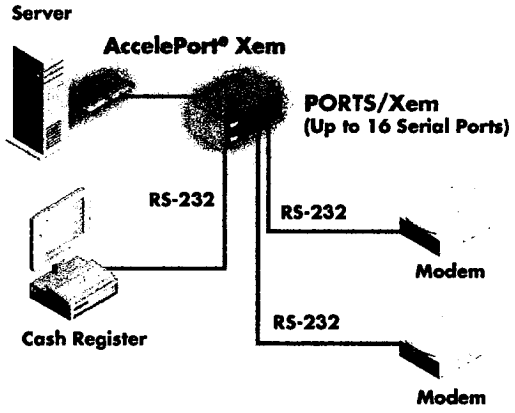


AccelePort® Xem

Multiport Serial Cards & Expansion Ports

The AccelePort Xem system enables your business to reap all the benefits of high-performance serial computing at the lowest price per port.

Point-of-Sale



Features/Benefits

- > Expandable up to 64 ports from a single host slot
- > Universal PCI bus slot supports 3.3V & 5V
- > Low profile PCI option
- > ISA bus product available
- > Eight- and 16-port concentrator boxes provide incremental expansion
- > Delivers data speeds up to 115.2 Kbps
- > RS-232 and RS-422 solutions
- > Ideal for connecting modems, terminals, printers, instruments and other serial devices
- > 1U 19-inch rack mount 16-port option

Overview

The AccelePort Xem asynchronous system is an expandable, modular and intelligent serial communication solution designed specifically for small to mid-size multiuser installations. This product is especially well-suited for applications that are expected to start small and grow over time to as many as 64 ports.

This flexible system enables you to connect up to 64 RS-232 or RS-422 serial ports to a Universal PCI (3.3V & 5V) or ISA-based computer. The result is a fast, reliable way to connect terminals, printers, modems, instruments and other serial peripheral devices, making it ideal for applications such as data acquisition, office/factory automation and industrial process control.

The AccelePort Xem system features a host adapter card with an on-board RISC-based processor that delivers up to 115.2 Kbps performance per port. The system also includes a compact Digi PORTS module that provides access to eight or 16 serial ports. PORTS modules can also be Ethernet-enabled using the PortServer® II.

The AccelePort Xem has driver support for a wide array of popular operating systems. It features the same quality, reliability and after-sales technical support that has made Digi the leader in serial connectivity.

Digi International makes device networking easy by developing products and technologies that are cost-effective and easy to use. With over 20 million ports shipped worldwide, Digi has been offering the highest levels of performance, flexibility, and quality since 1985.

Features/Specifications

FEATURES

AccelePort Xem Host Card

- Supports both Universal PCI (3.3V & 5V) and ISA platforms
- PCI 2.3/PCI-X compatible
- Low profile PCI option
- Up to 115.2 Kbps throughput per port
- 1 host card supports up to 4 Digi PORTS modules for a maximum of 64 ports
- Auxiliary power supply package (PN 76000109 in North America or 76000321 for International) required when using more than 2 PORTS modules on modules 3 & 4
- On-board IDT 3081 RISC processor with patented Front End Processor/Operating System (FEP/OS)

Digi PORTS Modules

- Interchangeable between ISA and PCI platforms & PortServer II
- 8 or 16 RS-232 asynchronous serial ports (RJ-45 or DB-25)
- 1U 19-inch rack mount PORTS/16em for RS-232
- 16 RS-422 asynchronous serial ports (DB-25)
- Modules can connect to PortServer II to expand port count up to 64 ports
- External Bus Interface (EBI) technology uses HD44 female connectors on PORTS modules to daisy-chain additional ports via 16-inch (40.6 cm) cable
- Surge protection on all signals
- Supports full modem control and full hardware handshaking (CTS, RTS, DSR, DTR and DCD) on all channels

POWER REQUIREMENTS

PCI Host Card

- +5V +/-5% 0.43 Amps typical, plus module power drain

ISA Host Card

- +5V +/-5% 1.75 Amps typical, plus module power drain

OPERATING SYSTEMS

- AIX
- HP-UX
- Windows NT*
- Windows 2000/XP
- Windows Server™ 2003
- Linux
- SCO OpenServer, UnixWare
- Solaris™ SPARC, Intel

* Driver updates available at www.digi.com/drivers.

SYSTEM REQUIREMENTS

ISA Host Card

- 1 full-length 16-bit slot
- 32K unused memory address space for static RAM
- 1 unused I/O port address

PCI Host Card

- 1 full-length 32-bit or 64-bit slot
- 1 3.3V or 5V slot

ENVIRONMENTAL

- Operating temperature: 10° C to 55° C (50° F to 131° F)
- Storage temperature: -25° C to 85° C (-13° F to 125° F)
- Relative humidity: 5% to 90% (non-condensing)
- Altitude: 0 to 12,000 feet (0 to 3,600 meters)
- Air movement: 30 CFM forced

REGULATORY APPROVALS

- FCC Part 15, Class B
- ICES-003 Class B
- EN55022, Class B
- EN50082-2
- UL 1950
- CSA 22.2 No. 950
- EN60950

MODEL . . . . . .PART NUMBERS

	North America	International
AccelePort Xem Universal PCI Kits		
AccelePort Xem Universal PCI (3.3V & 5V) 8-Port RS-232 DB-25 Concentrator	70001208	70001208
AccelePort Xem Universal PCI (3.3V & 5V) 8-Port RS-232 RJ-45 Concentrator	70001206	70001206
AccelePort Xem Universal PCI (3.3V & 5V) 16-Port RS-232 DB-25 Concentrator	70001203	70001203
AccelePort Xem Universal PCI (3.3V & 5V) 16-Port RS-232 RJ-45 Concentrator	70001201	70001201
AccelePort Xem Universal PCI (3.3V & 5V) 16-Port RS-232 RJ-45 1U 19" Rack	70001757	70001757
AccelePort Xem Universal PCI (3.3V & 5V) 16-Port RS-422 DB-25 Concentrator	70001559	70001559
AccelePort Xem Low Profile Universal PCI Kits		
AccelePort Xem Universal PCI (3.3V & 5V) Low Profile 8-Port RS-232 w/DB-25 Concentrator	70002008	70002008
AccelePort Xem Universal PCI (3.3V & 5V) Low Profile 8-Port RS-232 w/RJ-45 Concentrator	70002009	70002009
AccelePort Xem Universal PCI (3.3V & 5V) Low Profile 16-Port RS-232 w/DB-25 Concentrator	70002010	70002010
AccelePort Xem Universal PCI (3.3V & 5V) Low Profile 16-Port RS-232 w/RJ-45 Concentrator	70002011	70002011
AccelePort Xem Universal PCI (3.3V & 5V) Low Profile 16-Port RS-232 w/RJ-45 1U Rack	70002012	70002012
AccelePort Xem Universal PCI (3.3V & 5V) Low Profile 16-Port RS-422 w/DB-25 Concentrator	70002017	70002017
Additional PORTS Modules		
Digi PORTS/Xem 8-port RS-232 DB-25 Concentrator	76000120	76000120
Digi PORTS/Xem 8-port RS-232 RJ-45 Concentrator	76000122	76000122
Digi PORTS/Xem 16-port RS-232 DB-25 Concentrator	76000073	76000073
Digi PORTS/Xem 16-port RS-232 RJ-45 Concentrator	76000074	76000074
Digi PORTS/Xem 16-port RS-232 RJ-45 1U 19" Rack Concentrator	76000617	76000617
Digi PORTS/Xem 16-port RS-422 DB-25 Concentrator	76000535	76000548
Host Adapters		
AccelePort Xem Universal PCI (3.3V & 5V)	77000455	77000455
AccelePort Xem Universal PCI (3.3V & 5V) Low Profile	77000877	77000877
Accessories		
AccelePort Xem Power Supply	76000109	76000321
19" Rack Chassis - 2U for AccelePort C/CON and Digi PORTS/Xem	76000611	76000611
16" Daisy Chain Cable	76000707	76000707
60" Daisy Chain Cable (host to PORTS module)	76000708	76000708
120" Daisy Chain Cable (host to PORTS module)	76000709	76000709

For ISA bus part numbers, visit www.digi.com.

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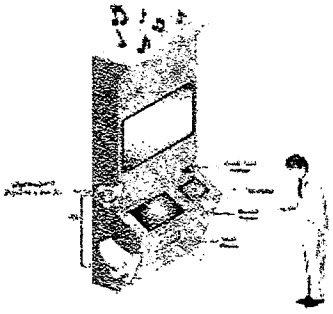
Create Interactive Kiosks with Proximity Sensors

Problem:
Creating interactive kiosks triggered by user proximity

Customer:
Kiosk manufacturer

Solution:
Watchport®/P proximity sensor



Larger View

Given the number of posters, flyers and other advertisements inside a shopping mall, catching the attention of a shopper can be tricky. An interactive kiosk manufacturer found a way to do just that with its 3D multimedia kiosks.

The manufacturer develops interactive kiosks that are placed in outlet malls throughout the United States. These kiosks provide general store information, print coupons and even collect market research data for mall owners. The video and audio output are designed to activate when a shopper is detected near the kiosk, offering a message to attract passersby. The event triggering device inside the first generation kiosks proved to be difficult to install and use, and was also priced higher than the manufacturer could support moving forward.

The kiosk manufacturer tested the Watchport/P, a USB-attached proximity sensor. It utilizes the easy Plug and Play installation inherent to USB connectivity, and is easy to integrate into an existing application. The sensor has built-in functionality to enable a video monitor to activate when a person is detected within an adjustable range of up to five feet of the kiosk. Using the Watchport/P sensor's Application Program Interface (API), the kiosk manufacturer was able to write its own software program that also activated the audio portion of the application.

Now you can:
Make your information kiosk stand out from the others by integrating proximity detection and event triggering.

Product solution:
Watchport/P proximity sensor product information

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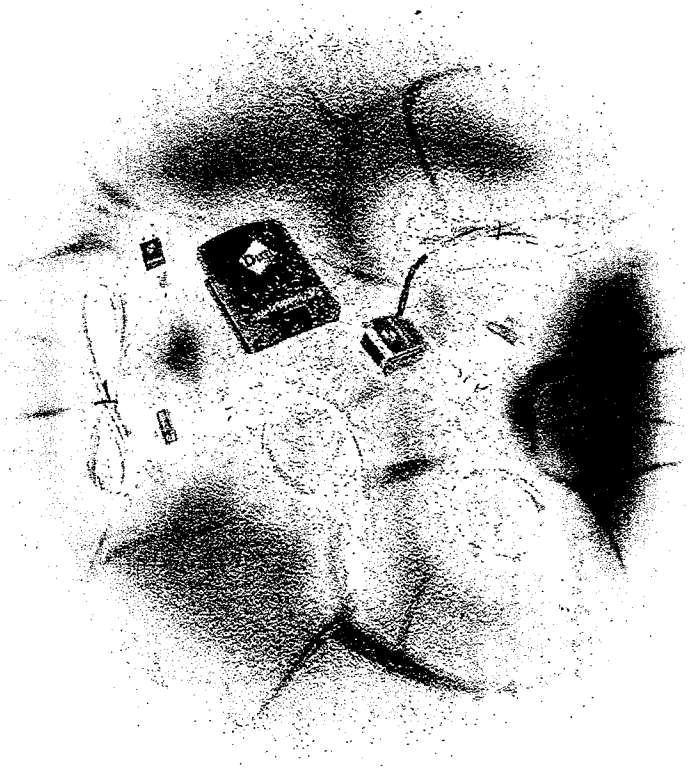
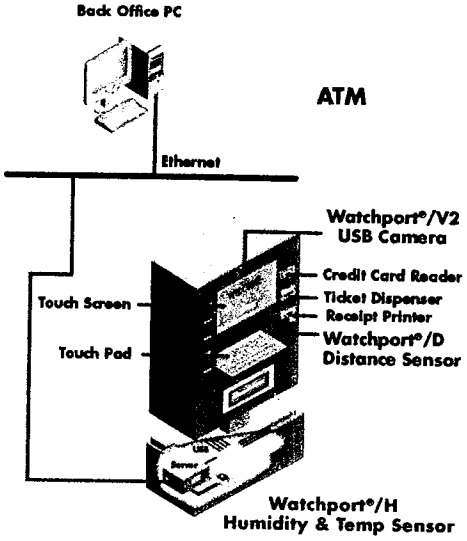
Product Datasheet



Watchport® Series

USB Environmental Monitoring Solutions

Create a made-to-order asset monitoring system with USB sensors and vision components.



Features/Benefits

- > Pre-empt system failures, extend life of equipment and reduce downtime in kiosks, ATMs, server rooms, warehouses and more
- > A' la carte product selection allows total customization
- > Easy to install and configure
- > Free Watchport Manager software sends alerts for remote monitoring
- > Extend distance between sensor and host with CAT5 UTP cable
- > Watchport/V2 USB camera offers exceptional low light sensitivity
- > Microsoft® Windows® compatible

Overview

The Watchport Series is the first complete line of Plug and Play USB devices for environmental monitoring. Vision components for surveillance, including the Watchport/V2 USB camera and Watchport motion detection software, may be paired with sensors to measure proximity, humidity, temperature, water, distance, acceleration or tilt to create a fully customized monitoring system. The Watchport Series can reduce total cost of ownership, extend life of equipment and reduce system downtime in mission-critical environments like kiosks, ATMs, server rooms, warehouses, data centers and more.

Watchport Manager software, included with each solution, provides centralized device status, supports data logging to preserve historical information and enables the easy integration of multiple sensors without additional software development. For remote monitoring applications, Watchport Manager can provide alerts via email, pager and computer screen, or send an event trigger to an external application.

The application possibilities are almost endless. Monitor temperature and humidity levels in a server room; detect the presence of water in an ATM; activate an information kiosk monitor when a shopper is nearby; or protect confidential information by automatically ending a session at a human resources kiosk when the user is no longer detected. For added flexibility, multiple Watchport devices may be configured and remotely monitored on an IP network with AnywhereUSB®.

Digi International makes device networking easy by developing products and technologies that are cost-effective and easy to use. With over 20 million ports shipped worldwide, Digi has been offering the highest levels of performance, flexibility, and quality since 1985.

Digi®

55

Watchport Sensors | Features and Specifications

FEATURES

- USB 1.0 and 1.1 compatible; backwards compatibility for 2.0
- Includes USB base, RJ-45 sensing device and Watchport Manager software
- API available for application software development
- Remotely monitor and configure multiple sensors on an IP network with AnywhereUSB/5

Watchport Manager Software

- Centralized device status
- Historical data logging
- User-defined thresholds
- Pager, email and onscreen alarms for remote monitoring
- Easy integration of multiple sensors without additional software development
- Minimizes into system tray to save screen space

Watchport/H Humidity & Temperature Sensor

- Collects both relative humidity (RH) and temperature data
- Temperature compensated RH readings
- ASCII command interface
- Maximum reading rate: 20 per second
- Temperature accuracy: +/- 3.6° F (+/- 2° C) at -40° F to +14° F (-40° C to -10° C) and +/- 0.9° F (+/- 0.5° C) at 14° F to 185° F (-10° C to +85° C)
- RH accuracy: +/- 5% at 0-90% non-condensing; +/- 8% over 90%
- RH stability: +/- 1% RH (typical) at 50% RH in 5 years
- Power consumption: 15 mA (normal), 1.0 mA (suspend mode)
- Maximum CAT5 UTP cable length: 500 ft (152.46 m)

Watchport/P Proximity Sensor, Watchport/D Distance Sensor

- Photo-electric sensor with hardware controlled sensitivity
- Enables system event triggering with Watchport Manager
  - Automatic log-off
  - Automatic system lock
  - Run user-selectable files such as screen savers, batch files, scripts and executables
- Detection range 1.6 to 4.9 ft (0.5 to 1.5 m)
- Maximum reading rate: 3 per second
- Maximum switching frequency: 100 Hz
- Response delay: ≤5.0 ms (typical)
- Power consumption: 70 mA (max)
- Maximum CAT5 UTP cable length: 500 ft (152.46 m)

Watchport/T Temperature Sensor

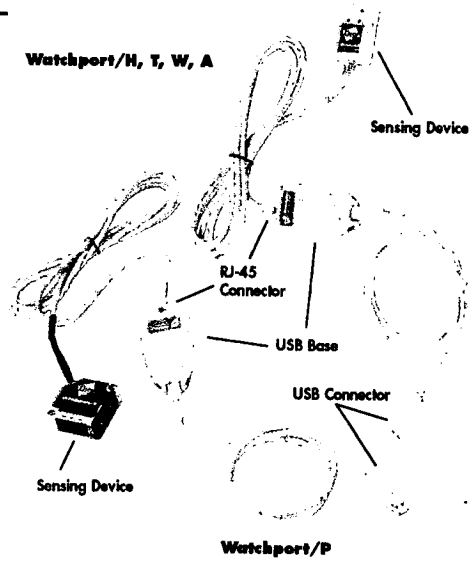
- ASCII command interface
- Maximum reading rate: 20 per second
- Temperature accuracy: +/- 3.6° F (+/- 2° C) at -40° F to +14° F (-40° C to -10° C) and +/- 0.9° F (+/- 0.5° C) at 14° F to 185° F (-10° C to +85° C)
- Temperature resolution: 0.1° C
- Power consumption: 15 mA (normal), 1.0 mA (suspend mode)
- Maximum CAT5 UTP cable length: 500 ft (152.46 m)

Watchport/W Water Detector

- 2 gold plated pins detect wetness on a non-conductive surface
- Binary output with "Wet" or "Dry" readings
- Waterproof enclosure
- Maximum reading rate: 5 per second
- Power consumption: 15 mA (normal), 1.0 mA (suspend mode)
- Maximum CAT5 UTP cable length: 1,000 ft (304.8 m)

Watchport/A Accelerometer

- Dual access accelerometer
- Measures dynamic acceleration or tilt
- Acceleration from -2g to 2g



OPERATING SYSTEMS

- Windows XP, Windows XP Embedded
- Windows NT® 4.0, Windows NT Embedded
- Windows CE
- Windows 2000/Me
- Windows 98/SE
- Windows 95
- Windows Server™ 2003

REGULATORY APPROVALS

- FCC Part 15, Class B
- CE
- EN55022
- EN55024
- EN60950
- UL 1950
- CSA 2.2 No. 950
- IEC-950

ENVIRONMENTAL

USB Base

- Operating temperature: 32° F to 149° F (0° C to 65° C)
- Relative humidity: 0% to 95% (non-condensing)

Sensing Device

- Operating temperature: -40° F to +185° F (-40° C to +85° C)
- Relative humidity: 0% to 95% (non-condensing)

POWER REQUIREMENTS

- USB-powered (no external power supply required)

DIMENSIONS

USB Base

- Length: 3.15 in (8.00 cm)
- Width: 1.75 in (4.45 cm)
- Height: 0.80 in (2.03 cm)
- Weight: 3.00 oz (85.05 g)

Sensing Device (Watchport/H, T, W)

- Length: 2.12 in (5.39 cm)
- Width: 1.19in (3.02 cm)
- Height: 0.69 in (1.75 cm)
- Weight: 3.00 oz (85.05 g)

Sensing Device (Watchport/P)

- Length: 3.15 in (8.00 cm)
- Width: 1.75 in (4.45 cm)
- Height: 0.80 in (2.03 cm)
- Weight: 3.00 oz (85.05 g)

Sensing Device (Watchport/A)

- Length: 2.12 in (5.39 cm)
- Width: 1.19 in (3.02 cm)
- Height: 0.69 in (1.75 cm)
- Weight: 3.00 oz (85.05 g

Sensing Device (Watchport/D)

- Length: 1.75 in (4.45 cm)
- Width: 0.74 in (1.88 cm)
- Height: 0.85 in (2.16 cm)
- Weight: 3.00 oz (85.05 g)

FEATURES

Watchport/V2

- Ideal for photo ID badging, kiosks, ATMs, access control and general surveillance
- Only USB camera of its kind with Windows NT drivers
- Motion detection software available to create cost-effective remote monitoring system
- Low light sensitivity: <1 lux
- Adjustable resolutions
  - 1280 x 960 (software enhanced)
  - 640 x 480
  - 352 x 288
  - 320 x 240
  - 176 x 144
  - 160 x 120
  - 128 x 96
- Maximum frame rates by resolution
  - 30 fps at all resolutions
- Removable 4.9 mm lens: F:2.0 adjustable
- Optional lens pack available
  - 3 mm wide angle (green)
  - 8 mm close-up (red)
  - 12 mm telephoto (blue)
- Optional mounts
  - Wall mount
  - Clamp mount
- Exposure controls
  - Manual and automatic gain and shutter control,
  - Automatic white balance (AWB)
  - Manual color balance
  - Color saturation
- Color formats: 16.8 million TrueColor (24 bit RGB), YUY2, UYVY
- Motion JPEG compression
- Sensor: color CCD
- Scan frequencies: 60, 50, 30, 25, 15, 12.5, 7.5, 6.25 and 4 Hz
- Shutter rate controls: 1/4 second to over 1/30,000 second

STANDARDS AND PROTOCOLS

- Microsoft DirectShow WDM
- Microsoft Video for Windows
- TWAIN

POWER REQUIREMENTS

- USB-powered (no external power supply required)

ENVIRONMENTAL

- Operating temperature: 32° F to 149° F (0° C to 65° C)
- Relative humidity: 0% to 95% (non-condensing)

OPERATING SYSTEMS

- Windows XP, Windows XP Embedded
- Windows NT 4.0, Windows NT Embedded
- Windows 2000/Me
- Windows Server 2003

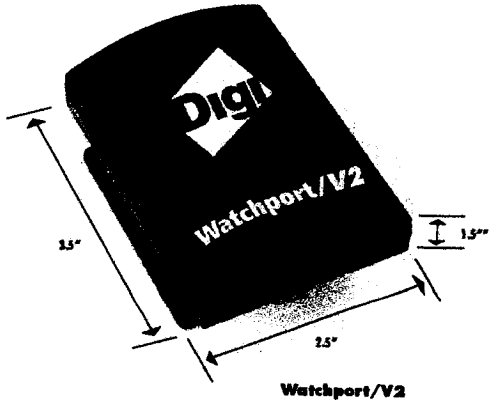
DIMENSIONS

Watchport/V2

- Length: 3.5 in (9.0 cm)
- Width: 2.5 in (6.4 cm)
- Height: 1.5 in (3.8 cm)
- Weight: 4.5 oz (127.6 g)

REGULATORY APPROVALS

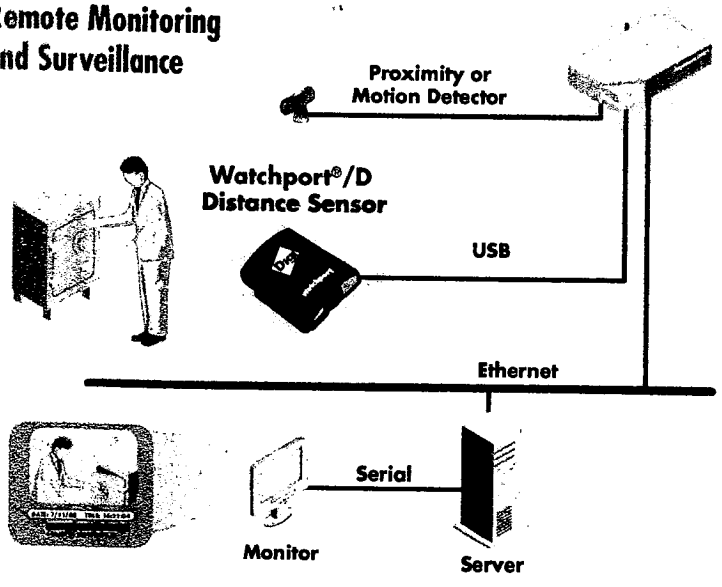
- FCC Part 15, Class B
- CE
- EN55022
- EN55024
- EN60950
- UL 1950
- CSA 2.2 No. 950
- IEC-950



Watchport/V2

AnywhereUSB®

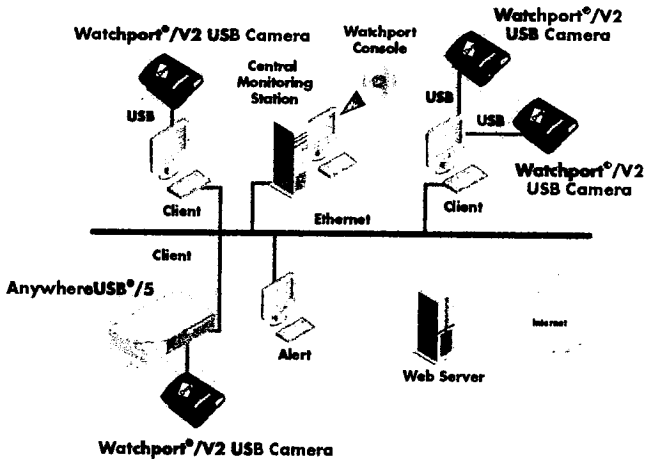
Remote Monitoring and Surveillance



Create a Low-Cost Surveillance System with Watchport/V2 and Motion Detection Software

Digi makes it easy to create a remote monitoring system to protect an office, warehouse, data room, gas pump, cash register, parking lot or other property. Watchport/V2 plus Watchport Sentry (single camera per host) or Watchport Console (multiple cameras per host) motion detection software offers a cost-effective alternative to CCTV and other remote surveillance solutions.

- Sensitivity controls and user-defined masks eliminate spurious motion detection; compensates for changes in lighting
- Instant playback allows user to review motion captured on a given day
- Automatic zoom
- Automated image archiving or deletion
- Motion map feature displays summary of motion over time
- Time lapse or webcam mode allows user to schedule operating periods for specific times and days of the week
- Name, time and date stamping of recorded images
- Image encryption to detect tampering



MODEL.....PART NUMBERS

Model	North America	International
Watchport/H (Humidity & Temperature Sensor)	301-1141-01	301-1141-01
Watchport/P (Proximity Sensor)	301-1143-01	301-1143-01
Watchport/T (Temperature Sensor)	301-1144-01	301-1144-01
Watchport/W (Water Detector)	301-1145-01	301-1145-01
Watchport/D (Distance Sensor)	301-1146-01	301-1146-01
Watchport/A (Accelerometer)	301-1147-01	301-1147-01
Watchport/V2 (USB camera)	301-9010-01	301-9010-01
Watchport/V Lens Package (optional)	301-9015-01	301-9015-01
Watchport/V Wall Mount (optional)	301-9018-01	301-9018-01
Watchport/V Clamp Mount (optional)	301-9019-01	301-9019-01
Watchport Sentry Software License (single camera per host)	301-9026-01	301-9026-01
Watchport Console Software License (2 cameras per host)	301-9027-01	301-9027-01
Watchport Console Plus Software License (4 cameras per host)	301-9028-01	301-9028-01
Watchport Console Extra License (for additional Console connections)	301-9029-01	301-9029-01

Additional Watchport Sensors in development. Contact us for details.

DIGI SERVICE AND SUPPORT

You can purchase with confidence knowing that Digi is here to support you with expert technical support and a strong five-year warranty. http://support.digi.com

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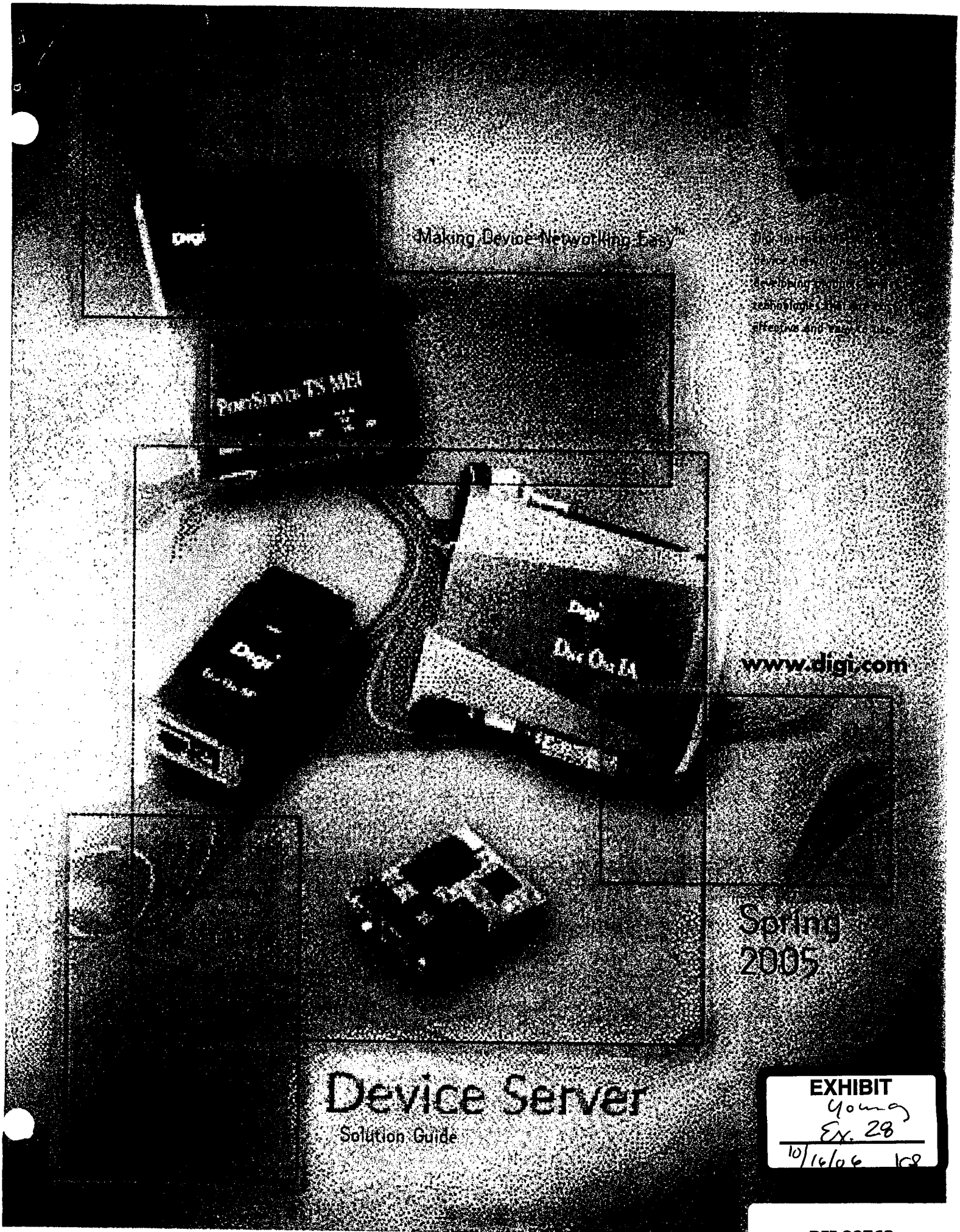

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Introducing the **Digi Device Server** Family.....

DII 00764

Making Device Networking Easy™

The world is in the early stages of an extraordinary but quiet technology revolution. The advances of personal computers and the Internet have laid the groundwork for the rapidly emerging era of networked devices.

In this post-PC era, billions of electronic devices will work invisibly, collaborating with each other and with people. This world of connected devices will offer new levels of customer service, product maintenance and support through enhanced remote monitoring, control and sharing of information. The revolution is made possible by advances in semiconductor technology and the growth of data networks and the Internet in particular.

The majority of today's electronic devices are not integrated into existing network environments. Instead, most devices primarily use inflexible closed systems, which often do not offer direct access and require manual intervention at the point of use. Today, the same processing technology that powers a desktop computer can be "embedded" into everyday devices or connected to these devices and transform them into intelligent, networked devices.

Digi device server technology combines the inherent benefits of data networking with proven asynchronous connectivity. It turns a previously isolated device with a serial port into a fully network-enabled component.

The benefits are clear: immediate access to information, improved flexibility and a significant reduction of operational cost.

You are now able to directly manage, control and access devices through the network, whether it is your organization's intranet or the ubiquitous Internet. Wherever you are, you are connected. Anytime. All without the time-consuming hassle and additional cost of separate wiring or the setup of campus modems, simply by taking advantage of your existing network infrastructure.

Device Server: What is it Anyway?

A device server is an intelligent and easy-to-use network device in a compact form factor that converts serial data into network data. It consists of all the vital components required to provide full network connectivity to virtually any kind of serial device: a reliable TCP/IP protocol stack, remote management capabilities, and both serial and network interfaces. The innovative design of Digi's device server products delivers a fully transparent connection without any need for modifications to the existing software or hardware components in your application.

Adding intelligence and network connectivity to devices opens up a world of new possibilities such as:

- Remote monitoring and diagnosing – manufacturers will be able to support products remotely after the sale, diagnose problems and even download repair solutions. If an on-site repair is required, a technician can be notified to arrive with exactly the right equipment and parts.
- Upgrades – manufacturers can offer software upgrades that can be downloaded directly to the product.
- Remote operation – a networked device can be accessible from an Internet browser.

Simply put, the value of networking is rapid access to information. The faster the access to reliable information, the quicker and better the resulting decision or action. The promise of device networking is this: the closer you can place decision-making to the source of information, the faster you can make good decisions. That translates directly into making your business more productive, more competitive and more profitable.

Connect Your World

Digi device servers deliver simple, reliable and cost-effective network connectivity for all your serial devices and address the growing need to connect individual devices to the network over industry-standard Ethernet. They are the ideal choice for a wide variety of applications, including industrial automation, security, transportation, retail or healthcare environments.

Industrial Automation

Productivity improvements. Inventory management. Quality control. All are common challenges found in virtually every manufacturing facility today. From automotive to warehouse environments, the need to attach essential devices (new or legacy) such as PLCs, CNC/DNC equipment, process and quality control equipment, pump controllers, bar-code readers/scanners, operator displays, scales and weighing stations, printers, machine vision systems, and many other types of manufacturing equipment is common. Digi device servers are the solution for all these challenges.

DII 00765

Medical/Healthcare

Today hospitals, clinics and laboratories are facing rapidly growing needs to receive, monitor and access patient and test information quickly, easily and accurately, whether at the bedside, nurse's station, or anywhere in the facility. Device servers can network-enable medical equipment and devices using the hospital's existing network to improve patient care and reduce operating costs. This allows medical staff to easily monitor and control equipment over the network at the point of care, in a laboratory, or somewhere else in the building. The result is improved quality of service and reduced operational cost.

Retail/Point-of-Sale

Having the right product in the store, managing orders and deliveries, and keeping pricing up-to-date are all things device servers can do to make your retail operation more successful. From big to small, one to thousands of stores, Digi device servers can help you focus on running your business by solving the challenges associated with enabling your POS devices to effectively share information across the network. Device servers can be used to quickly network-enable serial devices like card swipe readers, bar code scanners, scales, receipt printers and cash register display poles.

Building Automation/Security

Automating, managing and controlling all aspects of a building is within reach with Digi device servers. Device servers solve the problem of stand-alone control systems that are unable to talk to each other and share important data. Device servers can be used to centrally manage equipment and devices over an existing or new network to improve the comfort, safety and productivity of building occupants while reducing lighting, HVAC and overall energy operating costs.

Traffic Management

Managing cities over the Ethernet is now possible. Device servers provide an easy conversion from serial ports on cameras, billboards and traffic lights to Ethernet. Device servers eliminate the need for long haul modems and provide the management of the traffic equipment over a network. Hardened versions that can withstand the extended operating temperatures commonly required in traffic applications are available.

Console Management

Remote offices can have routers, PBXs, servers and other networking equipment that require remote management from the corporate facility. The device servers easily attach to the serial ports on this networking equipment and provide central, remote monitoring and management capability.

Ways to Use Device Servers

There are three primary ways to apply device servers today:

- Driver-based (a driver is installed on the host computer/machine)
- Tunneling mode (two device servers can share information directly with one another)
- Socket Services (operation relying on socket programming)

Driver-Based Control

Since its inception, Digi has been the leader in the asynchronous market, providing server- and PC-based serial connectivity. Digi has taken serial connectivity to a new level by creating a driver-based control scenario for device servers.

RealPort®

Digi's patented RealPort allows applications to talk to devices across a network as though the devices were attached directly to the host server or PC, when in fact the devices are connected to a Digi device server. RealPort establishes a connection between the host and networked serial device by creating a local COM or TTY port on the host, thereby delivering fully transparent and robust network connectivity for serial devices.

RealPort stands above all other COM/TTY port redirectors by delivering proven stability, operation in applications that require low latency, reliable operation over wide area networks, encryption features and support of the broadest range of operating systems across Windows® and UNIX® platforms. Also, it is the only implementation that allows multiple connections to multiple ports over a single TCP/IP connection. RealPort may be utilized with the Digi One®, Digi Connect® and PortServer® TS families to provide an easy migration path for moving serial device servers to the network – with no application modifications.

RealPort with Encryption

Digi now takes RealPort technology a step further with patent-pending RealPort with encryption,

DII 00766

offering a secure Ethernet connection between the COM/TTY port and a device server. Encryption prevents internal and external snooping of data across the network by encapsulating the TCP/IP packets in an SSL connection and encrypting the data using AES, one fo the most efficient security algorithms.

Tunneling Mode

Serial tunneling occurs when two device servers are configured to work together to share or communicate their respective serial device's data. The serial tunnel is established by connecting one device server configured for TCP Server mode to a device collecting data and the other device server configured for TCP Client mode to the field device sending data. This sharing of information is accomplished through a direct connection or serial tunnel that encapsulates the serial data in TCP packets and sends it across the network. This function allows two previously non-networked and isolated devices to communicate information and operate with existing installed software applications of devices on a network, instead of a long serial cable.

Socket Services Control

Sockets can be used to enable a software application to communicate with a serial device that has been network-enabled using a device server, without installing a driver. Socket communication is usually based on either TCP or UDP.

TCP is the protocol of choice for applications where an end-to-end connection with guaranteed packet delivery is required. The client and server in a TCP based connection need to maintain an open and active link to exchange data. This provides a reliable connection between two endpoints.

UDP does not require an established link to the intended recipient of the data. It is an efficient protocol that is best suited for applications requiring streamlined and fast distribution of information – without the need for guaranteed delivery. UDP also allows for the sending of a data packet to multiple recipients.

Digi device servers provide support for both TCP and UDP based socket communications. By leveraging Socket Services, Digi's device servers can operate in three different ways: TCP Server, TCP Client, or UDP Server/Client.

Flexible and Innovative Solutions

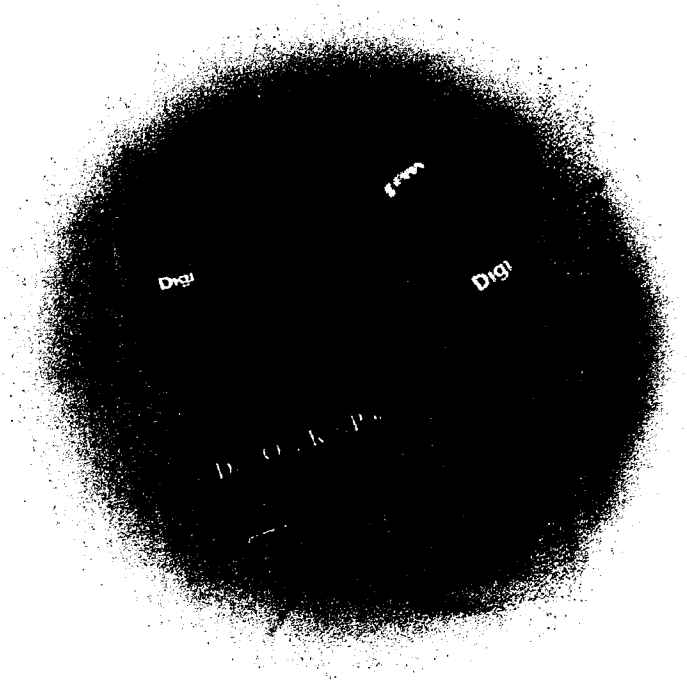
With over 20 million ports shipped worldwide, Digi has been offering the highest levels of performance, flexibility, and quality since 1985. Our device server solutions are available in numerous one-, two- and four-port versions, including embedded, hardened, wireless, Multi-Electrical Interface (MEI), modem and powered series models, for maximum flexibility for your application's unique requirements.

Protocol Summary	TCP Server	TCP Client	UDP Server/Client
Protocol type	Transmission Control Protocol	Transmission Control Protocol	User Datagram Protocol
Established connection required	Yes	Yes	No
Send and receive data	Yes	Yes	Yes
Multicast capability	No	No	Yes
Analogous to	Telephone call	Telephone call	Mailing a letter
Connection initiated by	Host machine	Controlled device/ networked device	Host machine or controlled device
Application characteristics	End-to-end connections requiring guaranteed packet delivery	End-to-end connections requiring guaranteed packet delivery	Fast distribution of information without the need for guaranteed delivery

Digi One Family and PortServer TS Family

The PortServer TS and Digi One families deliver universal, high-performance serial-to-Ethernet connectivity. The device servers are available in a variety of versions – including 802.11b wireless, MEI, modem, hardened and powered solutions – to meet specific application needs.

- Easy configuration via a web interface (HTTP)
- RS-232 or switch selectable RS-232/422/485 for use with virtually any device with a serial port
- Patented Digi RealPort technology for COM or TTY port control which makes it easy to move from serial host adapters to Ethernet-based device servers with no software application changes; patent-pending RealPort with encryption also available to prevent data sniffing over TCP/IP connection
- Additional features include: SSH v2 & SSL/TLS security, port buffering, powered Ethernet (802.3af), flexible 9-30VDC power, optional internal V.90 modem and many more



Digi One SP

Efficient RS-232/422/485 serial-to-Ethernet connectivity for applications requiring simple and cost-effective data communications.

Digi One RealPort® and PortServer TS Family

Standard multiport RS-232/422/485 serial-to-Ethernet connectivity that is ideal for applications requiring low port count and seamless integration into existing application.

PortServer TS MEI Family

Universal, high-performance device servers for RS-232/422/485 serial-to-Ethernet connectivity. Advanced features include SSH v2, SNMP, PPP, port buffering and many more.

PortServer TS H MEI Hardened Series

Hardened solution delivers high-performance RS-232/422/485 serial-to-Ethernet connectivity. Designed specifically for traffic management, pipelines or any application requiring extended operating ambient temperatures of -35° C to +70° C.

PortServer TS W MEI Wireless Series

Universal, high-performance RS-232/422/485 serial-to-wireless connectivity. Advanced features include WEP (64- and 128-bit), SSH, easy management and many more.

MEI = Multi-Electrical Interface (RS-232/422/485)

PortServer TS Family

PortServer TS M MEI Modem Series

Device server with internal modem provides both IP networking and standard phone line dial-up connectivity for remote access to RS-232/422/485 serial devices.

PortServer TS P MEI Power Series

Designed for universal, high-performance RS-232/422/485 serial-to-Ethernet where traditional power alternatives such as powered Ethernet and powered serial are required.

Product/Feature	Digi One SP	Digi One RealPort PortServer TS Family	PortServer TS MEI Family	PortServer TS H MEI Hardened Series	PortServer TS W MEI Wireless Series	PortServer TS M MEI Modem Series	PortServer TS P MEI Power Series
Number of serial ports	1	1/2/4	1/2/4	1/2/4	1/2/4	1/3	1/2/4
RS-232/422/485	DB-9		RJ-45	RJ-45	RJ-45	RJ-45	RJ-45
RS-232		RJ-45					
Powered via Ethernet & serial ports							•
802.11b (wireless)					•		
10/100Base-T	•	•	•	•	•	•	•
DHCP, RARP, Static IP, ARP-Ping	•	•	•	•	•	•	•
UDP/Multicast	•	•	•	•	•	•	•
Telnet/Reverse Telnet	•	•	•	•	•	•	•
Modbus/TCP			•	•	•	•	•
HTTP	•	•	•	•	•	•	•
SNMP			•	•	•	•	•
PPP		•	•	•	•	•	•
SSH v2 Server			•	•	•	•	•
SSL/TLS/HTTPS			•	•	•	•	•
Port buffering			•	•	•	•	•
Internal V.90 modem						•	
Extended temp.(-35° C to +70° C)			•				
COM/TTY driver	RealPort	RealPort	RealPort with encryption	RealPort with encryption	RealPort with encryption	RealPort with encryption	RealPort with encryption
North America part number	(1-port) 70001851	(1-port) 70001749	(1-port) 70001805	(1-port) 70001917	(1-port) 70001954	(1-port) 70001898	(1-port) 70001988
		(2-port) 70001750	(2-port) 70001806	(2-port) 70001918	(2-port) 70001956	(3-port) 70001899	(2-port) 70001989
		(4-port) 70001751	(4-port) 70001807	(4-port) 70001919	(4-port) 70001958		(4-port) 70001990
International part number	(1-port) 70001851	(1-port) 70001752	(1-port) 70001832	(1-port) 70001917	(1-port) 70001954	(1-port) 70001895	(1-port) 70001991
		(2-port) 70001753	(2-port) 70001833	(2-port) 70001918	(2-port) 70001957	(3-port) 70001896	(2-port) 70001992
		(4-port) 70001754	(4-port) 70001834	(4-port) 70001919	(4-port) 70001959		(4-port) 70001993

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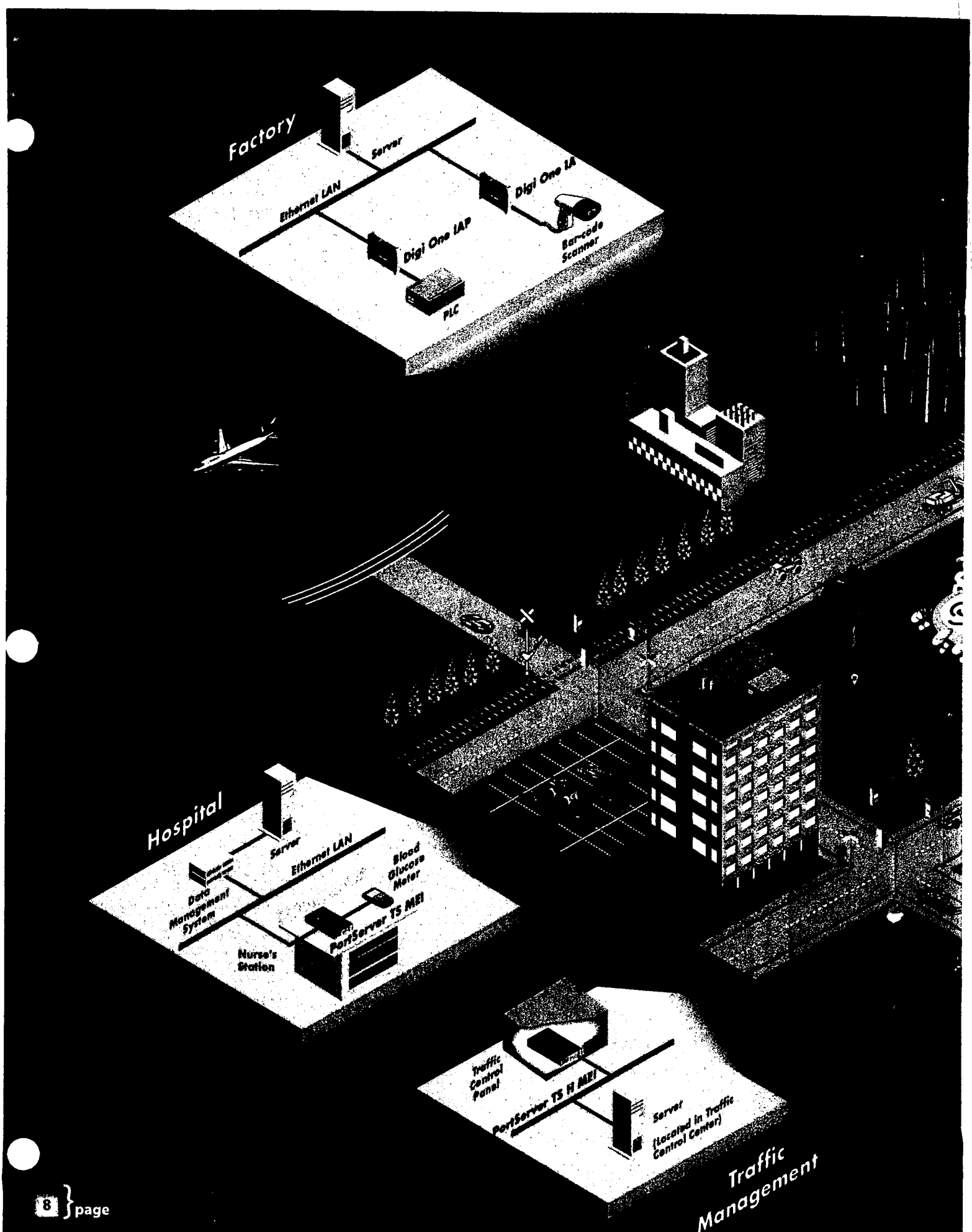
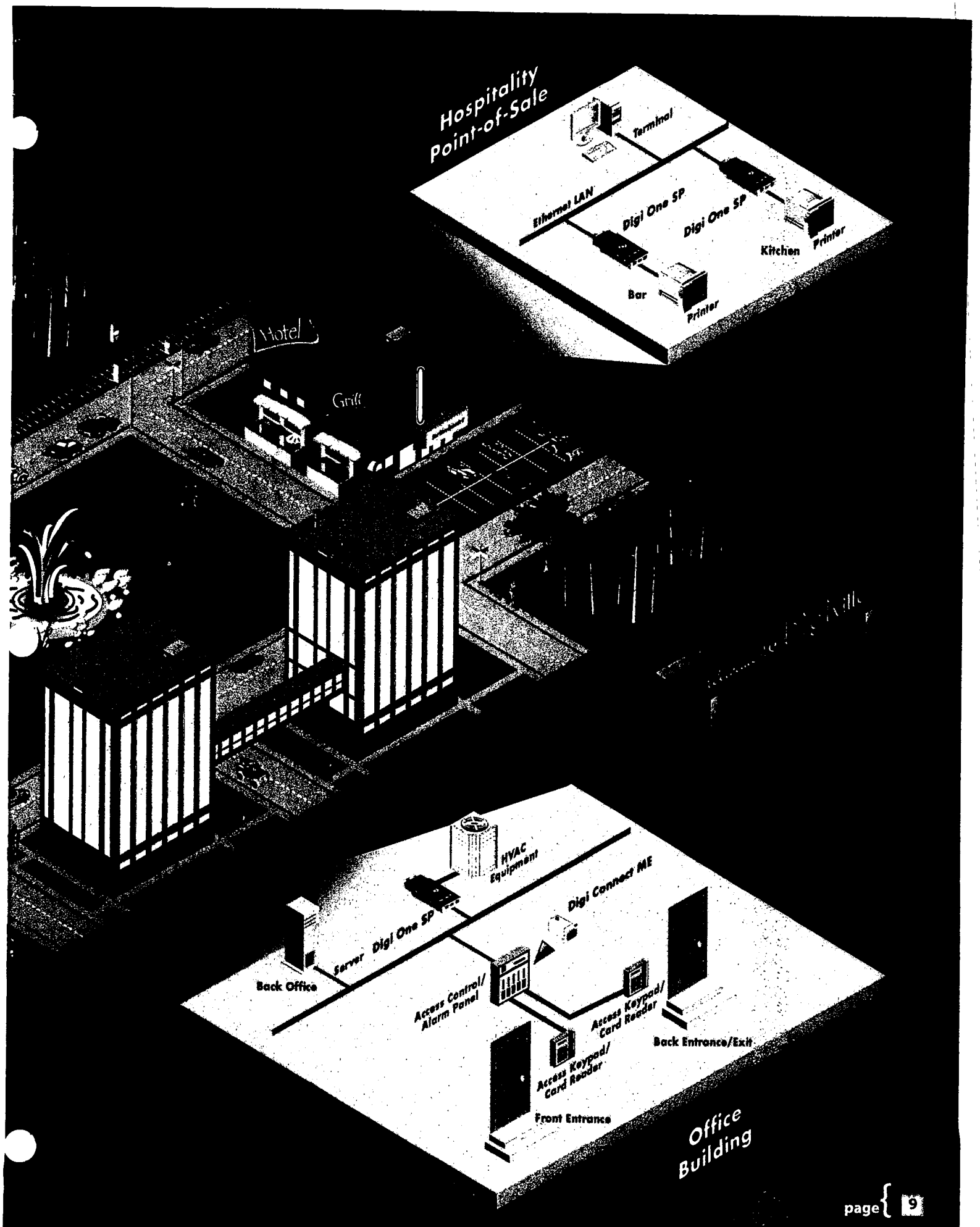
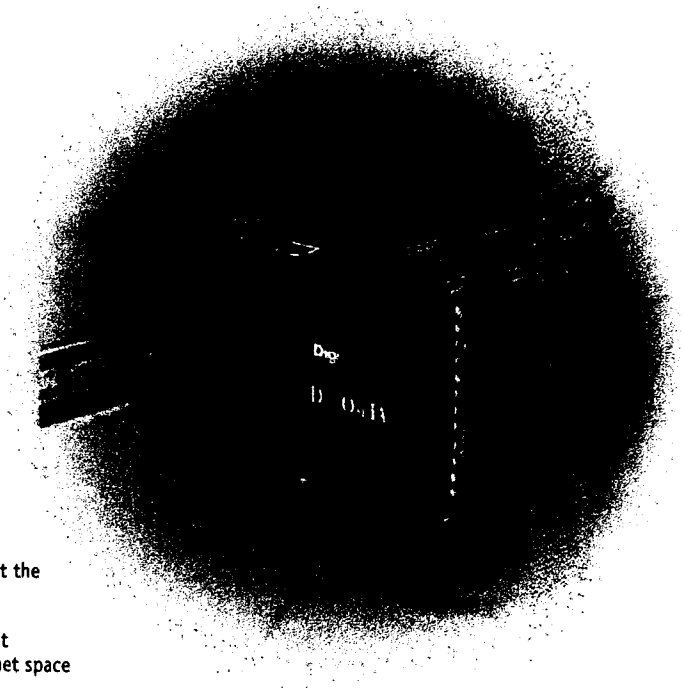

Factory
Server
Ethernet LAN
Digi One IA
Digi One IAP
Bar-code Scanner
PLC
Hospital
Server
Ethernet LAN
Blood Glucose Meter
Data Management System
PortServer TS MEI
Nurse's Station
Traffic Control Panel
PortServer TS H MEI
Server (Located in Traffic Control Center)
Traffic Management


Hospitality
Point-of-Sale
Terminal
Ethernet LAN
Digi One SP
Digi One SP
Kitchen
Printer
Bar
Printer
Hotel
Grill
HVAC
Equipment
Digi Connect ME
Server
Digi One SP
Back Office
Access Control/
Alarm Panel
Access Keypad/
Card Reader
Back Entrance/Exit
Access Keypad/
Card Reader
Front Entrance
Office
Building

Digi One IA Family

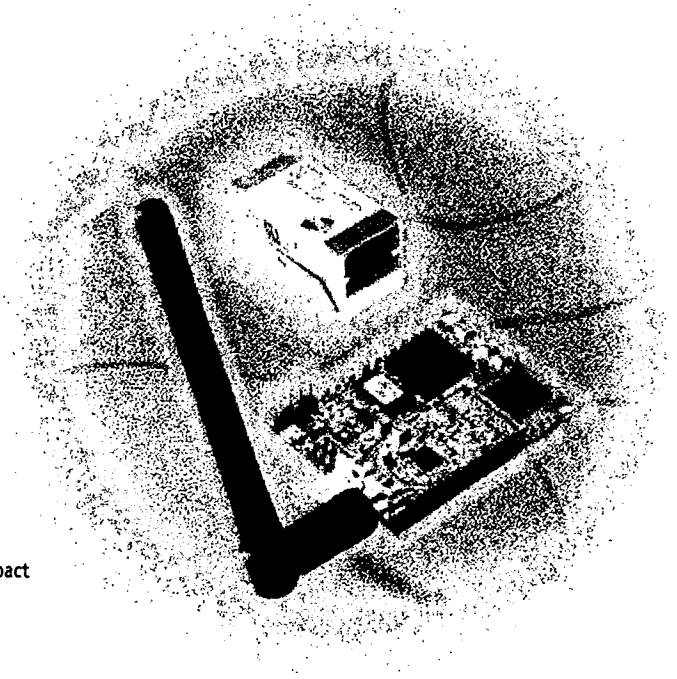
The Digi One IA family provides specific features and a unique form factor for the industrial automation market. The Digi One IA device server delivers efficient serial-to-Ethernet connectivity for applications requiring TCP Socket, UDP Socket or UDP multicast functionality. It offers advanced features, such as industrial protocol conversion and Digi's patented RealPort technology for COM/TTY port management.



- Switch selectable RS-232/422/485 for use with virtually any device with a serial port
- Extended input voltage of 9-30VDC with screw terminal connections
- 32° F to 140° F (0° C to 60° C) operating temperature to meet the demands of the factory floor
- An industrial strength, ergonomic enclosure designed to mount vertically on a standard 35 mm DIN rail, saving valuable cabinet space
- Industry-leading low latency to meet the strict data throughput requirements for CNC/DNC equipment and other applications
- Pass-through port functionality to connect additional serial devices locally, without disconnecing the PLC from the network (Digi One IAP only)

Product/Feature	Digi One IAP	Digi One IA	Digi One SP IA
RS-232/422/485	•	•	•
DIN rail mounting	•	•	•
9-30VDC	•	•	•
10/100Base-T	•	•	•
Industrial Ethernet protocol translation (Modbus/TCP, EtherNet/IP, Allen-Bradley Ethernet)	•		
Industrial serial protocol conversion (DF1, OMRON, Modbus, ASCII)	•		
Pass-through port	•		
Multi-master/Multi-protocol	•		
Socket Services	•	•	•
Telnet/Reverse Telnet	•	•	•
HTTP	•	•	
PPP	•		
SNMP	•		
DHCP, RARP, Static IP, ARP-Ping	•	•	•
UDP/Multicast	•	•	•
Powered Ethernet	•		
Monitoring & diagnostic utility	•	•	•
COM/TTY driver	RealPort with encryption	RealPort	RealPort
North America part number	70001777	70001862	70001999
International part number	70001777	70001862	70002000

Digi Connect® Family



The Digi Connect family offers the industry's first interchangeable wired and wireless embedded modules. The solutions make it easy to build future-proof products based on a single design supporting wired 10/100Base-T and 802.11b wireless Ethernet connectivity. Built on leading NetSilicon 32-bit NET+ARM technology, Digi Connect® EM, Digi Connect® Wi-EM, Digi Connect ME® and Digi Connect® Wi-ME combine true plug-and-play functionality with the flexibility of complete software customization.

- Ideal for any embedded application where cost-effective serial connectivity over Ethernet is needed
- Fully network-configurable single component solutions in compact form factors with robust TCP/IP stack and Ethernet controller onboard
- Reduce costs and time to market typically associated with developing custom solutions
- Integration kits and royalty-free NET+Works® development platform available for custom application development

Please contact us at 1-877-OEM-DIGI
(or +49 231-9747-0 internationally)
to discuss your application specific requirements.

Product/Feature	Digi Connect ME	Digi Connect Wi-ME	Digi Connect EM	Digi Connect Wi-EM
Number of serial ports	1	1	2	2
TTL serial interface	•	•	•	•
Max. data rate	230 Kbps	230 Kbps	230 Kbps	230 Kbps
10/100Base-T	•		•	
802.3af power pass-through	•		•	
802.11b		•		•
GPIO	5	5	9	9
Static IP	•	•	•	•
SNMP	•	•	•	•
SPI interface			•	•
DHCP, ARP-Ping	•	•	•	•
UDP/Multicast	•	•	•	•
Encryption (SSL/TLS)	•	•	•	•
HTTPS customizable web interface	•	•	•	•
Integration and Development Kit	•	•	•	•
HTTP	•	•	•	•
Telnet/Reverse Telnet	•	•	•	•
COM/TTY driver	RealPort with encryption	RealPort with encryption	RealPort with encryption	RealPort with encryption
Form factor	36.7 x 19.05 x 18.67 mm	49.4 x 19.05 x 18.67 mm	40 x 49 mm	49.15 x 47.12 x .58 mm
Part number (worldwide)	DC-ME-01T	DC-WME-01T	DC-EM-02T	DC-WEM-02T

DII 00773

10/100Base-T

Ethernet running on Unshielded Twisted Pair (UTP) cable transmitting data between two points, reaching throughput between 10 Mbps and 100 Mbps.

AES

The Advanced Encryption Standard (AES) is an encryption algorithm that uses 128-, 192- and 256-bit keys to secure sensitive data. Originally developed for unclassified U.S. Government materials, it has gained popularity in the private sector for applications such as online banking and credit card transactions.

ARP-Ping

ARP-Ping is an easy and universal method to assign an IP address to an unconfigured Digi device server. The network administrator manually creates an entry for the particular device in the ARP table of a router or host system in order to map the physical address of the device to a specific IP address. After the ARP entry has been successfully created, the administrator simply pings the device server, which in turn automatically assumes the IP address provided in the packets generated by the ping command.

DHCP

The Dynamic Host Configuration Protocol (DHCP) is a standardized communications protocol that enables network administrators to centrally manage and automate the assignment of IP addresses in an organization's network.

RS-232

An electrical standard that ensures reliable communication of serial devices produced by different manufacturers.

RS-422

An electrical standard based on RS-232 that provides greater noise immunity and longer transmission distances (up to 1000 feet) by balancing signals.

RS-485

Similar to RS-422, RS-485 permits multi-drop capabilities along with greater noise immunity and longer transmission distances.

HTTP

The HTTP protocol is a basic set of rules for exchanging files on the World Wide Web. It is used by web browsers to request information, such as a web page or a file, from a web server. Web pages are created using the Hypertext Markup Language (HTML), which describes the actual layout and content of a page.

Based on HTTP and HTML, Digi device server products provide Web-based management functionality that enables users to control and monitor the device server using a standard Web browser.

Industrial Ethernet Protocol

Industrial Ethernet Protocols define how the serial data of an industrial device is transferred over the network to a host machine server such as an HMI system. Digi supports the following protocols on the Digi One IAP:

- Modbus/TCP
- Allen Bradley Ethernet
- EtherNet/IP

Industrial Serial Protocols

Industrial Serial Protocols define the rules for serial/industrial device communication between Digi device servers and PLCs or other equipment with a serial port. The Digi One IAP supports the following serial protocols:

- Modbus ASCII
- Modbus RTU
- Omron: FINS, CompoWay/F and Hostlink
- DF1 (full- and half-duplex)
- Custom/user-defined
- ASCII

MEI (Multi-Electrical Interface)

Digi term meaning the serial interface supports RS-232, 422 and 485.

Modbus/TCP

Modbus is a family of vendor-neutral communication protocols for the supervision and control of automation equipment. Modbus/TCP is a specific variant covering the use of Modbus messaging in a TCP/IP network environment, such as the intranet or the Internet.

Multi-Master

Multi-master is the ability for the Digi device server to handle multiple network masters for the serial device. The multiple masters can run different protocols. For example, one PLC could have an HMI system as a master using RealPort, while an administrator uses TCP sockets to download configuration information.

Port Buffering/Logging

Port buffering allows data from each port to be captured and stored within the Digi device server to allow a future examination of the events that occurred on a specific port prior to an alarm or failure. Port logging can save buffer contents to network drives for review and analysis.

Powered Ethernet

The Powered Ethernet standard (IEEE 802.3af) provides power to network devices by utilizing the existing Ethernet and eliminates the need for additional external power supplies.

PPP

The Point-to-Point Protocol (PPP) is a standard method for transporting multi-protocol network data including TCP/IP over asynchronous or synchronous point-to-point links such as analog modems or ISDN. Using PPP, remote devices can be easily connected to a company's network or the Internet.

RARP

Reverse Address Resolution Protocol (RARP) is a protocol by which a physical device in a local area network can request to learn its IP address from another network system's internal Address Resolution Protocol (ARP) table. A network administrator manually creates entries for each device in the table of a router or other network system to map the physical device addresses to the corresponding IP addresses. RARP-based configuration is widely used in Linux® and UNIX operating systems.

RealPort®

Digi's unique and patented RealPort COM/TTY port software allows seamless integration into existing appplication environments such as Windows, UNIX, and Linux by making network-enabled serial devices available through the standard COM/TTY interfaces.

RealPort with Encryption

This patent-pending technology takes RealPort a step further by offering a secure connection between the COM/TTY port and a device server. TCP/IP packets are encapsulated in an SSL connection and encrypted via AES to prevent data snooping across the network.

RFC 2217

RFC 2217 is an extension of the Telnet protocol used to access serial devices over the network. It enables applications to set the parameters of remote serial ports (baud rate, flow control etc.), detect line signal changes, as well as receive and transmit data.

SNMP

SNMP (Simple Network Management Protocol) is a model governing management and monitoring of network devices and their functions.

The SNMP model consists of four basic components:

- **SNMP Protocol**
  The SNMP protocol defines how the Network Management Station (NMS) and the Management Agent communicate with each other.
- **Management Information Base**
  A Management Information Base (MIB) is a formal description of specific network objects, such as the data rate of an interface or error counters, that can be set and/or monitored using an NMS.

Digi provides both standard MIB support and device server specific ("private") support for the Digi One RealPort and PortServer TS product lines.

- **Network Management Station**
  The NMS provides a software application, like HP OpenView or Tivoli NetView, which enables the network administrator to control and monitor network components (device servers, routers, bridges). The communication between the NMS and the Management Agent is based on the SNMP protocol.
- **Management Agent**
  The Management Agent is located in the actual network device, such as the Digi One RealPort, and provides information control and monitoring services to the NMS as defined in the corresponding MIB.

DII 00775

Socket Services

Sockets are a simple method of communication between a client and a server on a network. The client actively initiates a connection to a server and the server accepts the connections from the client.

The programming interface used for socket communication is called Socket Services and is available in most network operating systems, including Linux, UNIX and Microsoft® Windows.

Socket services can be used to enable a software application to communicate with a serial device that has been network-enabled using a device server. The actual specifics of the client/server relationship are dependent on the application. In other words, a device server can act as client and a software application as a server, and vice versa.

SSH

Secure Shell (SSH) provides highly secure network communications based on command shell, data tunneling, and file transfer services. Like SSL, the privacy and integrity of the transmitted data is achieved by utilizing both strong encryption and sophisticated authentication methods.

SSL

Secure Sockets Layer (SSL) provides message privacy, message integrity and authentication services to transfer information privately and securely across data networks, such as the Internet. In fact, SSL secures the vast majority of online purchases and browser-based monetary transactions on the Internet.

Static IP

Static IP refers to an IP address that has been explicitly assigned to a specific device or system in its network configuration. The change of a statically assigned IP address requires manual reconfiguration of the network device or system.

Telnet/Reverse Telnet

Reverse Telnet (sometimes called Direct Telnet) is the initiation of a Telnet session from a computer system to one of its remote users/clients. A user/client who wishes to access a remote system initiates a Telnet session to the networking system. The user must have permission and is prompted to provide a user name and password. Reverse Telnet is used to monitor a serial device, such as a console port of a router from another networked computer system.

UDP/Multicast

Digi Multicasting feature sends out a data packet to multiple destinations on a network. Digi products support up to 64 recipients. The packets are sent out one at a time to each recipient listed on the table.

Making DEVICE NETWORKING easy

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DIT 00777

Making

DEVICE NETWORKING

easy

DII 00778

Digi

NETWORKING

EXHIBIT
Young Ex. 29
10/16/06

2004

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Introduction/Overview

Digi International, the leader in Connectware, makes device networking easy by developing products and technologies that are cost-effective and easy to use. With more than 18 years experience and over 20 million ports shipped worldwide, Digi is a recognized brand with a reputation for reliable, innovative, quality products, and strong technical support.

Digi Connectware is used in thousands of enterprise applications worldwide, with particular success in the retail/Point-of-Sale (POS) market space. We offer an extensive range of solutions for retail applications, including device servers, terminal servers, Universal Serial Bus (USB) connectivity, environmental monitoring products and asynchronous serial cards. We also provide leading edge software technology like RealPort® and USB Over IP®. Whether you own a single gas station or a nationwide chain of department stores, Digi has the tools you need to easily connect and network-enable bar-code scanners, receipt printers, scales, cash registers, credit card readers or any type of POS peripheral device.

The bottom line is simple. We can provide the tools you need to reliably network your devices so you can focus on running your business. Our solutions make it possible for you to manage inventory; monitor assets; share information across a LAN (Local Area Network) or WAN (Wide Area Network); simplify cabling; or streamline your POS system architecture. We can also lower your total cost of ownership by upgrading your retail stations using existing application software and peripheral devices. Let us show you, like we have shown the retail customers featured in these pages, how Digi is Making Device Networking Easy™.

Department Store Chain

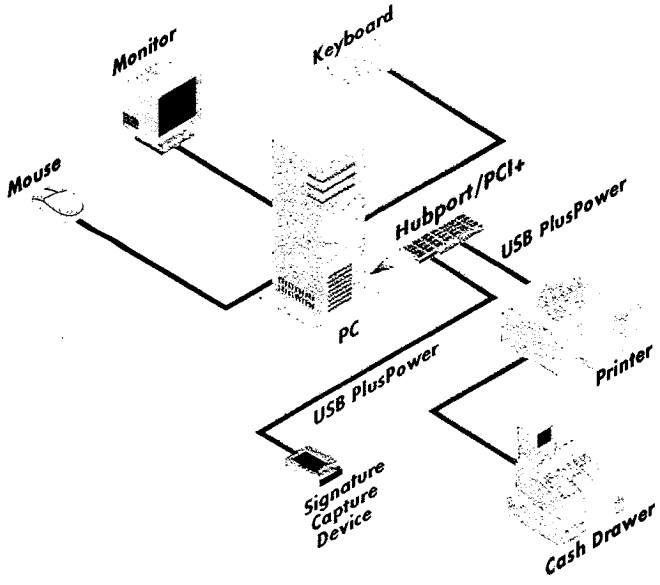
Creating a cost-effective, elegant retail solution with as few power cords and cables as possible

Problem

Hubport/PCI+

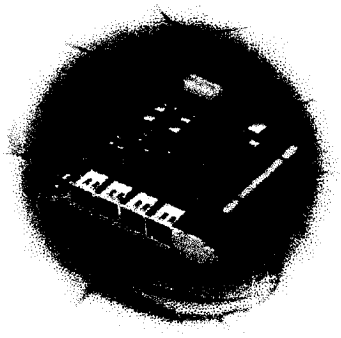
Solution

A department store was preparing to upgrade its POS stations in its stores nationwide. Each system required a variety of POS peripheral devices, some of which were USB-attached and required external power supply bricks. This created a tangled mess of wires, required extra room for the bricks, and also made it difficult to troubleshoot and perform routine maintenance. The retailer had two basic requirements for the upgrade: eliminate external power supply bricks for USB devices and keep upgrade costs to a minimum.



The system integrator suggested a migration to USB PlusPower peripheral devices, since they do not require external power supply bricks even for higher power devices like printers. Since this technology, also known as powered USB, is a relatively new trend in POS, a specialized retail system is usually required to connect the devices. In this case, "specialized" meant beyond budget, so the department store was at a loss as to how they could implement the technology while keeping costs down.

The Hubport/PCI+ enabled the department store to connect the USB PlusPower peripheral devices to a standard, low-cost PC. This four-port card solution was installed, keeping costs of the new retail system to a minimum. The department store was able to migrate to USB PlusPower receipt printers and signature capture devices, eliminating the problematic power supply bricks and instantly saving space. The Hubport/PCI+ also provided an applet that enabled technicians to turn off power to one or all devices, allowing periodic system updates without significant downtime. Implementing the Hubport/PCI+ solution allowed the department store to meet its key requirements in the system upgrade.



Now You Can....

Eliminate power supply bricks for USB devices and transform a basic, low-cost PC into a high performance retail system.

Hubport/PCI+

POS System Manufacturer

Problem

Creating smaller, centrally managed retail stations

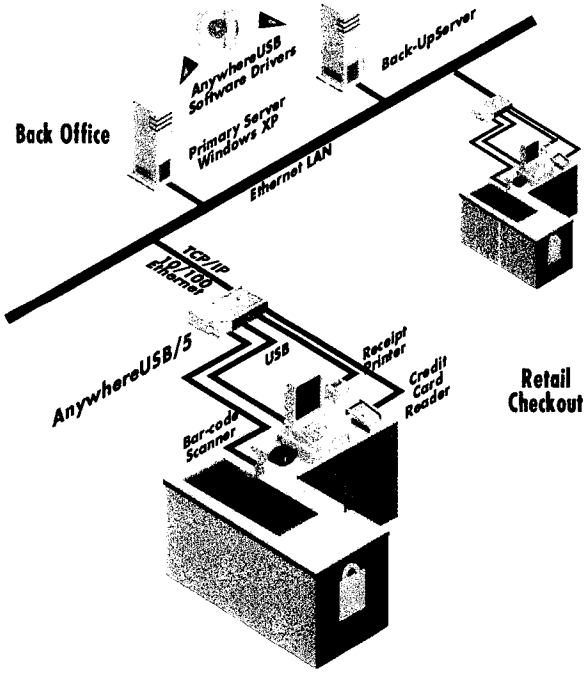
Solution

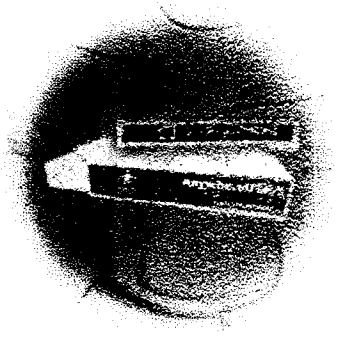
AnywhereUSB/5

Real estate, especially floor space inside a store, is invaluable to a retailer. The smaller the POS stations, the more room for merchandise, and the higher potential for revenue. A major POS system manufacturer was searching for a way to build a thinner POS station for a retailer with three checkout stations per store. The retailer wanted not just a smaller footprint, but also an easy way to centrally manage each station.

The POS system manufacturer tested the AnywhereUSB/5, a 7-inch wide network-enabled USB hub, and found that it could take the place of the PC or dumb terminal at each POS station. Special software drivers are loaded on the back-office server, where all transaction processing takes place via USB Over IP® technology. Each POS station includes one AnywhereUSB, which is connected to the LAN over a standard TCP/IP connection. A bar-code scanner, credit card reader, receipt printer, pole display and alphanumeric cash register are connected to the AnywhereUSB. The five USB ports on each AnywhereUSB appear to be locally attached to the back-office server.

The AnywhereUSB also offered this retailer centralized management, instantly increasing security and reducing IT support. Since the AnywhereUSB replaced the PC at each POS station, less user-intervention can occur, reducing data corruption or tampering. It enables IT to perform maintenance and upgrades at a single server rather than at multiple PCs. This set-up also provides system redundancy – if the server fails, another server on the network can take over, reducing system downtime.





AnywhereUSB/5

Now You Can....

Take the PC out of the checkout lane to create smaller retail stations and simplify operations with USB Over IP technology.

Retail Distribution Center

Network-connecting printers and scanners that are scattered throughout the warehouse

Problem

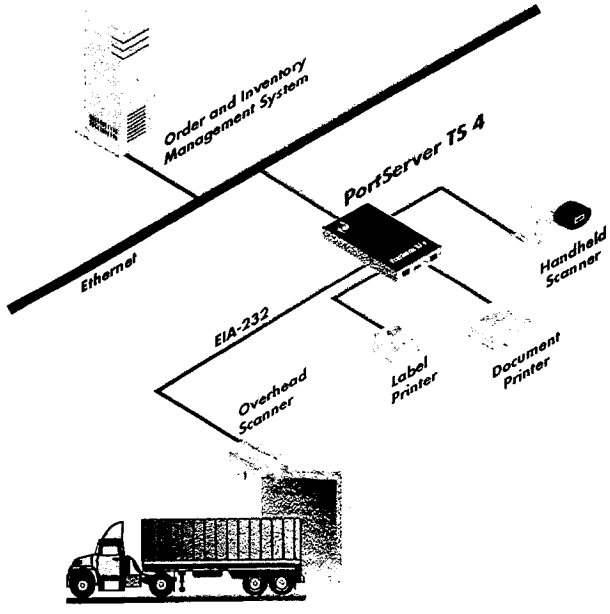
PortServer TS 4

Solution

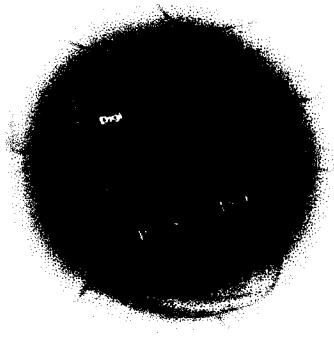
A warehouse is the heart of any merchandise distribution. The fast and accurate tracking of incoming and outgoing shipments is essential to successfully manage orders and inventory.

In order to streamline the logistics associated with running its merchandise warehouses, this company decided to upgrade the warehouse system. Several overheard scanners were installed at each warehouse location to allow faster and more efficient unloading of delivery trucks using conveyors, virtually eliminating the slow and resource-intensive manual scanning process. The scanned information is then used to automatically print labels, route packages on the conveyors and immediately validate purchase and shipping orders. A key requirement of the project was the easy and seamless network integration of scanners and printers, which were often scattered throughout the large facilities.

The PortServer TS 4 with Digi's patented RealPort technology was deployed in each warehouse, connecting up to four different serial devices to the existing order and inventory management system. Scanners and printers were made available on the network, without any changes to existing application software and hardware. The flexibility of Digi device servers proved to be invaluable, allowing the customer to significantly reduce operating costs and function more efficiently.



Shipping/Receiving Dock



PortServer TS 4

Now You Can....

Optimize supply chain efficiency by automating delivery and pick-up of warehouse merchandise using Digi's multiport device servers.

Grocery Store

Problem — **Reliably connecting serial peripheral devices to low-profile PCI slots**

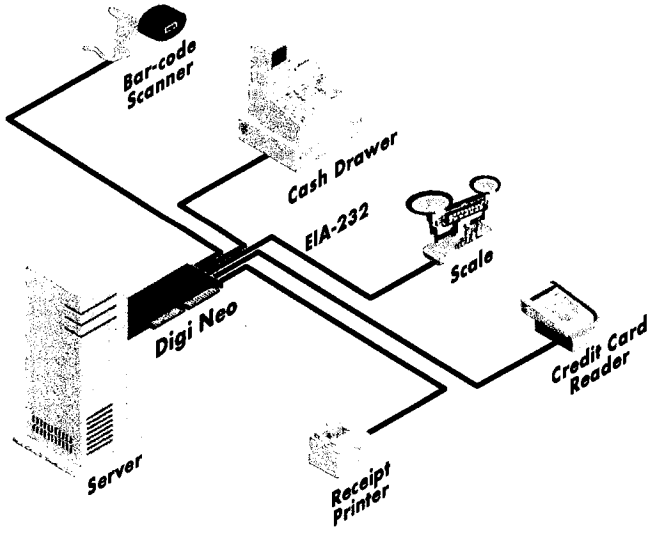
Solution — **Digi Neo**

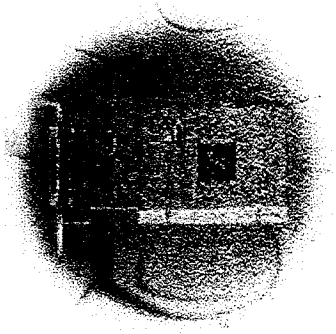
Proprietary networking and POS systems are commonplace in today's retail environment. For some companies, the specialized IT support required for system maintenance and upgrades of these systems is not practical.

A grocery store chain with 94 locations in the eastern United States was preparing to overhaul its LAN and POS application. Their previous retail system infrastructure relied heavily on proprietary components that required expensive and time-consuming programming and maintenance by an external IT professional. The company wanted to create a simple POS system, using networked PCs to connect the required peripheral devices.

The grocery store began looking for an internal PCI card solution to add serial connectivity to its PCs; however, it realized that a "low-profile" card was required because the PCI slot in each PC was half the height of standard PCI cards. To further complicate matters, most PCI card manufacturers only offer low-profile solutions in two- and four-port options. Since they needed to connect a receipt printer, scale, credit card scanner, cash drawer and bar-code scanner, at least five serial ports were required.

The integrator working with the grocery store presented the Digi Neo Universal PCI 8-port card as part of a total LAN-based checkout system. The Digi Neo is one of the only low-profile eight-port card solutions available on a single board. The grocery store liked the flexibility of having extra ports for future connectivity needs, as well as extensive cabling and connector options available with the Digi Neo.





Digi Neo

Now You Can....

Easily add up to eight serial ports to a low-profile PCI card slot for serial peripheral device connectivity.

Convenience Store

Connecting EIA-232 peripheral devices to a POS station with no serial ports

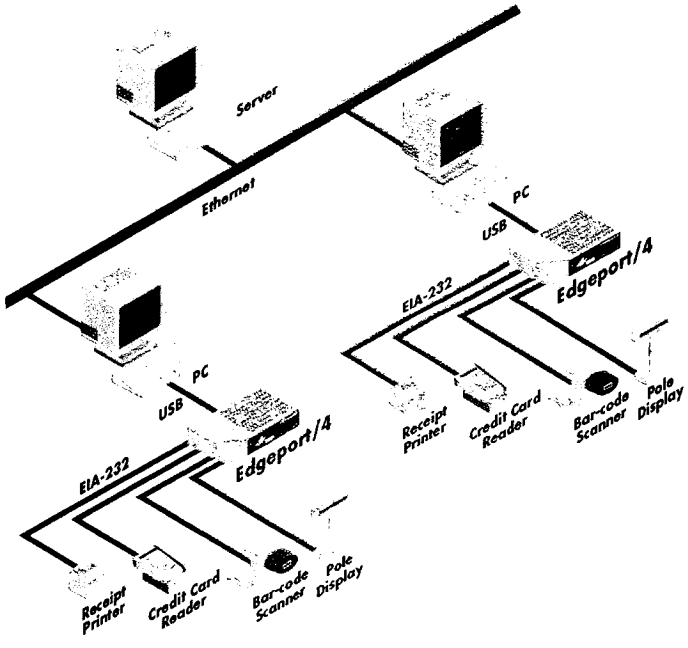
Problem

Edgeport/4

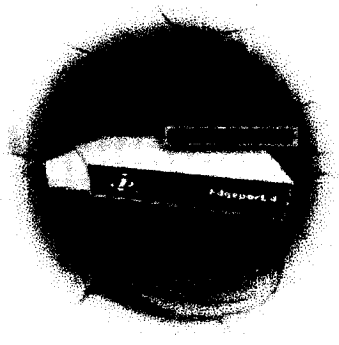
Solution

While there are numerous nationwide convenience stores throughout the United States, small, family owned stores also flourish. These smaller stores often cannot justify the expense of sophisticated, pre-packaged retail systems, so finding lower cost alternatives is a common concern.

A small convenience store chain needed to replace its outdated POS systems while protecting its investment in application software and peripheral devices. Each location required two POS stations in the front of the store, and a third PC acting as a server in the back office. The company wanted to build the checkout terminals from the ground up using low-cost PCs and its existing peripheral devices instead of expensive, pre-configured retail systems. They also wanted to have the flexibility to add or remove peripheral devices as connectivity needs changed, without onsite IT support. Finally, they required the ability to easily disconnect devices and move one of the PCs from the store into the back office should the server fail.



Since the new PCs they purchased did not have serial ports, they needed an easy I/O expansion solution to connect a receipt printer, bar-code scanner, credit card reader and pole display at each checkout. The Edgeport/4 USB-to-serial converter made it easy to add serial ports to the PCs, enabling the convenience store to create a low-cost retail system. The Plug and Play solution connected to one of the PC's onboard USB ports, adding four serial ports in minutes. Should the server in the back office go down, moving one of the PCs from the store floor is easy, since disconnecting all the peripheral devices is just a matter of unplugging the Edgeport/4.



Now You Can....

Add serial ports to a PC in minutes to easily connect POS devices like bar-code scanners, receipt printers, pole display and credit card readers

Edgeport/4

Consumer Electronics Retailer

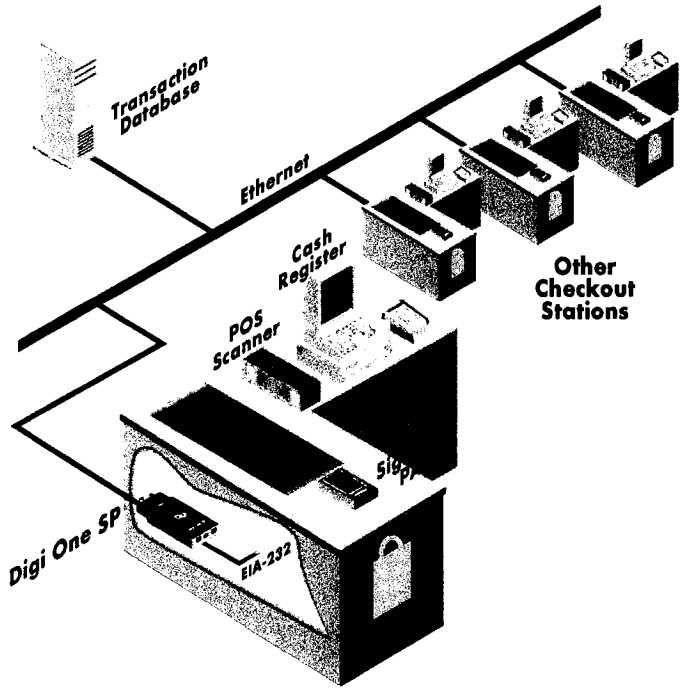
Problem — **Network-enabling peripheral devices for existing POS systems**

Solution — **Digi One SP**

Retailers incur significant costs from the handling and retrieval of credit card receipts. Finding a way to reduce these costs, while protecting themselves against credit card fraud, was a key initiative for this consumer electronics and appliances retailer.

This retailer was scheduled to relocate its checkout terminals to improve the in-store shopping experience. This was the perfect time to upgrade the existing checkout systems to include electronic signature capture devices. These devices would allow the retailer to easily retrieve receipts and the corresponding signatures, thus streamlining transaction processing and minimizing the cost of fraudulent charge-backs. The retailer wanted to perform this upgrade without impacting the existing POS software application investment.

The Digi One SP device server connected the signature pads to each store's transaction database simply by utilizing the in-store network. Digi's patented RealPort software allows Ethernet connected serial ports to be used in exactly the same way as locally connected serial ports, without any changes to existing application software. This enabled the electronic signature capture devices to be seamlessly integrated into the POS system. This cost-effective and reliable solution protected the existing POS infrastructure, streamlined credit card transactions and increased customer convenience.



Digi One SP

Now You Can....

Easily network-enable new POS devices without impacting existing POS infrastructure.

Pay-at-the-Pump Manufacturer

Customer drive-offs at gas stations

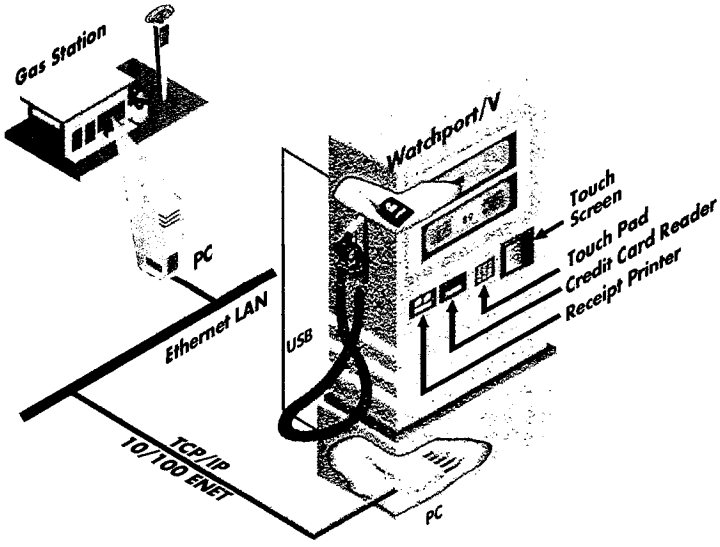
Problem

Watchport/V

Solution

For many gas station owners, the pay-at-the-pump system gives new negative meaning to the term "self service." While customer convenience is increased, so is the potential for customer drive-offs, or leaving the gas pump without paying.

A gas pump manufacturer with an installed base of 1500 systems in the southern United States needed a solution for customer drive-offs, a problem which caused its larger customers up to $1,000,000 in losses per month. The manufacturer wanted a cost-effective surveillance solution to capture a photo of the license plate and driver at the beginning of each transaction, since these elements are required in order to prosecute the offender.



The manufacturer evaluated the Watchport/V USB camera and found its low-light sensitivity, high resolution and ease of use to be exactly what they needed. The camera is highly customizable, with a replaceable lens and a removable chassis, and can easily be integrated into a gas pump enclosure since it is USB-attached and does not require an external power supply.

The manufacturer worked with Digi to write a software package that would trigger the Watchport/V to snap a photo when a transaction was initiated at the pump by selecting "Pay Inside" as the payment option. If the transaction was not completed within a given timeframe, the image would be uploaded to the store server and saved for identification purposes.

Now You Can....

Add surveillance functionality to a pay-at-the-pump system or other kiosk without a substantial technology investment.

Watchport/V

Entertainment Retailer

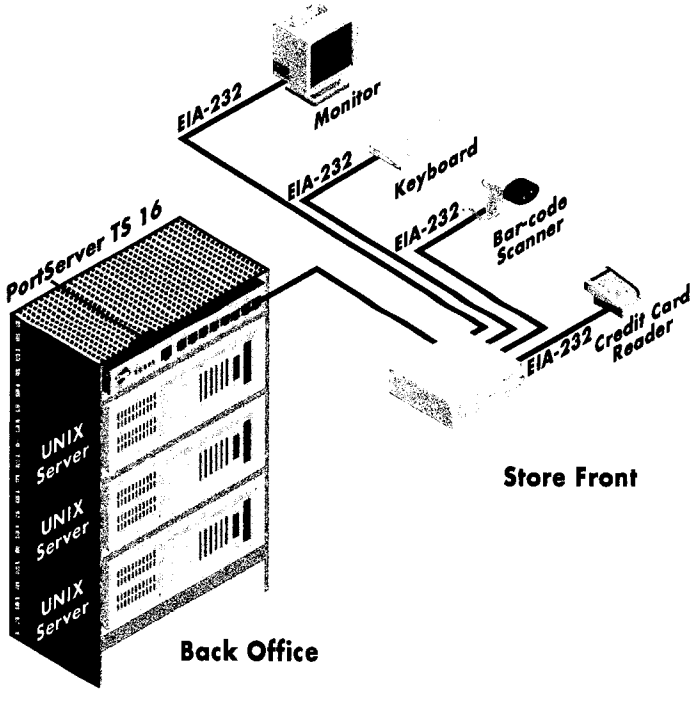
Problem — Effectively managing inventory and checkout systems

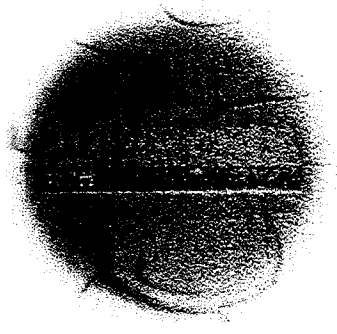
Solution — PortServer TS 16

In the fast moving retail business for movies, music, video games and books, store owners must have not only the most up-to-date product selection on hand, but also a low maintenance, reliable IT infrastructure to manage inventory and run an efficient checkout system. With bookstores and video rental stores on practically every corner, the need to maintain accurate inventory and operate efficient checkout systems is essential to ensure customer satisfaction and build client loyalty.

A major entertainment retailer with 144 locations nationwide needed an IT solution to upgrade its checkout and inventory systems. Reliability and minimum system downtime were key requirements in the system upgrade. The company used a UNIX platform and needed an easy way to connect the terminals in the checkout lanes and information desks. It was imperative that data transfer between the front and back of store was always in sync, so that inventory was accurate at all times.

The PortServer TS 16, a terminal server with 16 serial ports, integrated easily into the rack-mounted server in the back office to create an elegant device networking solution. Each terminal in the checkout lanes and at the information desks is connected with EIA-232 serial cables to the PortServer TS 16. The bar-code scanners, credit card readers, receipt printers and other POS peripheral devices are attached directly to the terminals. The new solution simplified not only the checkout software implementation, but also the data transfer since all the information is now multiplexed to a single host connection.





PortServer TS 16

Now You Can....

Implement a low maintenance IT infrastructure to ensure seamless information flow between inventory and checkout systems.

Commercial Paint Supply Retailer

Using multiple operating systems in a POS architecture

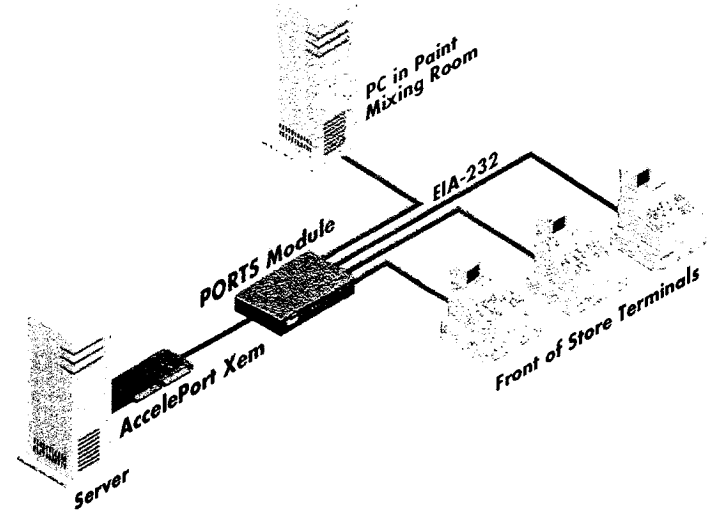
Problem

AccelePort Xem

Solution

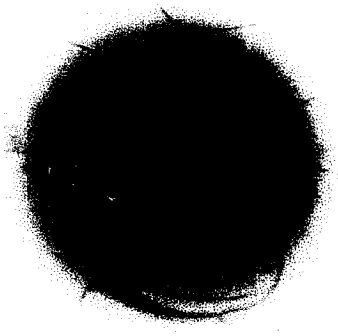
Updating a POS system often means migrating to a new Operating System (OS). Finding a solution with broad OS support was a key initiative for a commercial paint supply retailer in the Northeast United States. who was planning a system upgrade, including a new OS deployment.

Each location had multiple PCs throughout the store: at the front counter for order entry; at the back of the store where paint mixing orders are filled; and at multiple checkout terminals. They needed a reliable solution for networking the PCs to the store's central server, which was connected via a WAN to its headquarters' main server. To complicate matters, several different OS's were being used at the different locations. System administrators planned to standardize on one OS, but had not finalized the timeline or even the platform they would use. They had narrowed their decision to Microsoft Windows® NT, Windows 2000, Linux® and SCO®. They wanted to test a new networking solution that was compatible with each OS, since multiple ones would be used indefinitely.



Each location could be running a different OS

The AccelePort Xem system offered an easy solution for connecting their POS terminals. The product's broad OS support was a key factor in the decision, as it is compatible with all the platforms being used by the company today. The flexible system also features a host adapter card, which was installed inside each store's server, and a compact Digi PORTS module that provides access to eight or 16 serial ports to connect each POS terminal. The retailer needed a solution that would allow for future growth, and the AccelePort Xem did just that – as many as 64 ports could be added to one system as connectivity needs changed over time.



Now You Can....

Easily network all of your retail locations, even if multiple operating systems are used at different stores.

AccelePort Xem

Kiosk Manufacturer

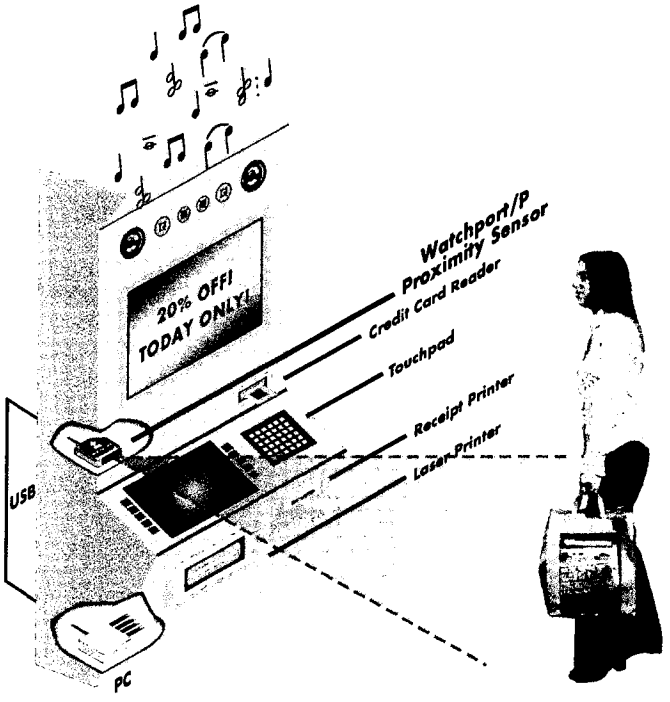
Problem Creating interactive kiosks triggered by user proximity

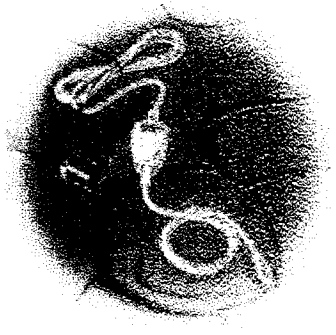
Solution Watchport/P

Given the number of posters, flyers and other advertisements inside a shopping mall, catching the attention of a shopper can be tricky. An interactive kiosk manufacturer found a way to do just that with its 3D multimedia kiosks.

The manufacturer develops interactive kiosks that are placed in outlet malls throughout the United States. These kiosks provide general store information, print coupons and even collect market research data for mall owners. The video and audio output are designed to activate when a shopper is detected near the kiosk, offering a message to attract passersby. The event triggering device inside the first generation kiosks proved to be difficult to install and use, and was also priced higher than the manufacturer could support moving forward.

The kiosk manufacturer tested the Watchport/P, a USB-attached proximity sensor. It utilizes the easy Plug and Play installation inherent to USB connectivity, and is easy to integrate into an existing application. The sensor has built-in functionality to enable a video monitor to activate when a person is detected within an adjustable range of up to five feet of the kiosk. Using the Watchport/P sensor's Application Program Interface (API), the kiosk manufacturer was able to write its own software program that also activated the audio portion of the application.





Watchport/P

Now You Can....

Make your information kiosk stand out from the others by integrating proximity detection and event triggering.

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Connectware™

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Cellular Gateways

Digi Connect WAN Family

ConnectPort WAN VPN

Digi Connectware Manager

Wi-Fi Device Servers

Video/Sensors

Zero-Clients

USB

Console Servers

Serial Servers

Serial Cards

Embedded Solutions

Cellular Gateways

Dig's cellular products utilize high speed wireless GSM, CDMA and 2.5G/3G cellular networks to create reliable, secure Wireless WAN (WWAN) connections to remote assets for real-time two-way communications. Remote networks requiring a backup connection to existing landlines may also utilize a wireless connection for failover.

Cellular Gateways

Digi Connect® WAN Family

- Ethernet-to-cellular router, serial-to-cellular gateway and cellular VPN router
- Primary and backup connectivity to remote sites and devices
- GSM (GPRS/EDGE) and CDMA (1xRTT) models

More Info

ConnectPort™ WAN VPN

- Industry's first upgradeable, commercial grade 3G router
- Secure wireless WAN connection over high speed cellular network with integrated VPN
- CDMA EvDO or GSM HSDPA/UMTS support

More Info

Digi Connectware® Manager

- Enterprise class remote management software
- Securely manage, monitor and configure groups of devices across remote networks
- Automatic firmware management and upgrading

More Info

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EXHIBIT
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Wi-Fi Device Servers

External 802.11x
Embedded 802.11x
External Bluetooth

Video/Sensors

Zero-Clients

USB

Console Servers

Serial Servers

Serial Cards

Embedded Solutions

Wi-Fi Device Servers

Digi's Wi-Fi (802.11x) and Bluetooth® device servers simplify cabling, increase user mobility and enable remote device management.

External 802.11x

- Flexible and secure serial-to-wireless device servers
- USB to wireless LAN adapter
- Strong encryption and authentication

More info

Embedded 802.11x

- Add embedded 802.11b or 802.11.a/b/g wireless LAN networking to any electronic device
- Digi's pre-certified wireless radio technology ensures long-term product availability

More info

External Bluetooth

- Easy RS-232 serial cable replacement
- Wireless host connection for PDAs and other Bluetooth-enabled devices
- Increases user mobility, reduces cabling expenses

More info

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Video/Sensors

Watchport/V2

Watchport Sensors

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Console Servers

Serial Servers

Serial Cards

Embedded Solutions

Video/Sensors

Create a made-to-order environment monitoring system with USB cameras and USB sensors. Application software included for device status, data logging and alerts.

Video/Sensors

Watchport®/V2

- Enterprise-class USB camera
- Exceptional low light sensitivity, replaceable lens, optional motion detection software
- Designed for kiosks, ATMs, ID badges, remote monitoring, mobile computing, surveillance and more

More info

Watchport® Sensors

- Plug and Play USB sensors for distance/proximity, humidity, temperature, water and acceleration/tilt
- Application software included for device status, data logging and alerts
- Create a made-to-order environment monitoring system to preempt damage to equipment and facilities

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Video/Sensors

Zero-Clients

ConnectPort Display

USB

Console Servers

Serial Servers

Serial Cards

Embedded Solutions

Zero-Clients

Remote networking solutions offer serial, USB and display over IP connectivity, allowing the interactive experience to be placed anywhere there is a network connection.

Zero-Clients

ConnectPort™ Display

- Connect, monitor and interact with remote display, USB and serial devices over IP
- Eliminates locally attached host PCs, workstations or thin clients
- Terminal emulation provides migration path from legacy terminal applications

More Info

Product Literature

- Zero-client computing
- Replace POS terminals with zero-clients

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Edgeport
AnywhereUSB
USB Plus Series
Wavespeed/LAN
Rapidport/4
Hubport
EdgeUSB
USB Accessories

Console Servers

Serial Servers

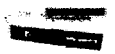
Serial Cards

Embedded Solutions

USB

Simple-to-install, high performance solutions connect serial, parallel, USB and modem devices to PCs, thin clients and servers via USB port expansion.

USB-to-Serial Converters

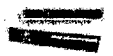


Edgeport®

- Easy COM port expansion for peripheral device connectivity
- External, USB Plug and Play alternative to PCI cards
- 1, 2, 4, 8 or 16 ports with a variety of features and form factors

More info

USB Over IP



AnywhereUSB®

- Network-enabled USB hub eliminates locally-attached host PCs
- Utilizes RealPort® USB technology to connect USB devices anywhere on a TCP/IP LAN
- 5 USB ports

More info

USB PlusPower

USB Plus Series

- Hub and card solutions offer 1, 3 or 4 USB PlusPower (powered USB) ports
- Models with serial ports also available
- Eliminates individual power supply bricks for USB peripheral devices such as printers, signature capture devices and bar-code scanners

More info

802.11b Wireless LAN

Wavespeed®/LAN

- USB to 802.11b wireless Ethernet adapter
- Offers an easy way to add a PC, laptop or thin client to

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the network
- Windows NT® and Windows® CE support

More info

USB Dial-Up Remote Access

Rapidport/4®
- Plug and Play solution adds 4 56K V.92 modems to a PC or server in minutes
- Gives network users access to ISP, fax and other dial-up applications supported by Windows

More info

USB Hubs

Hubport®
- Industrial grade USB 2.0 hubs for instant USB expansion
- 4 or 7 ports in a compact chassis
- Available in DC powered models and with locking power connectors

More info

USB Software Stack for Windows NT

EdgeUSB
- Enables developers, integrators and device manufacturers to add Windows NT support to USB devices for large-scale installations
- First and only USB software stack for Windows NT that supports Microsoft® WDM driver architecture

More info

USB Accessories

USB Accessories
- Cables, rack mount kits, PCI to USB 1.1 expansion card and USB to parallel printer converter
- Customize your connectivity solution to meet application requirements

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Digi CM
Digi Remote Power Manager

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Serial Cards

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Console Servers

Intelligent console servers enable you to access, monitor and manage network devices and servers across multiple sites, both over the network or via their console ports, even when the network is down.

Console Servers

Digi Passport™

- Combines advanced console management, ***free***KVM and IPMI support in one reliable device
- Automates common equipment monitoring tasks
- 4, 8, 16, 32 or 48 serial ports (RJ-45); dual Ethernet ports; DC and dual AC power options

More info

Digi CM™

- Securely access and manage servers and IT devices via the serial console port
- In-band and out-of-band connectivity
- 8, 16, 32 or 48 serial ports (RJ-45); DC and dual AC power options

More info

Power Management

Digi Remote Power Manager

- Integrates with Digi Passport, Digi CM and PortServer TS 8/16 to remotely power on/off devices, measure electrical load, monitor temperature and more
- Configurable alarms for 24/7 "real time" notification of out-of-spec conditions
- 8 or 10 power receptacles

More info

Product Literature

- Solution guide

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1 to 4 Ports

8 or More Ports

Serial Cards

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Serial Servers

Digi's external serial servers provide full network connectivity to virtually any serial device. They include a reliable TCP/IP protocol stack, remote management capabilities, both serial and network interfaces, and Digi's patented RealPort® COM port redirector for a fully transparent COM or TTY connection.

1 to 4 Ports

- Reliable, cost-effective serial-to-Ethernet connectivity
- Standard, hardened/extended temperature, internal modem, wireless, industrial and customizable models
- RS-232 and RS-232/422/485 serial models

More info

8 or More Ports

- Network connectivity for groups of serial devices
- Cost-effective remote management of networking equipment and servers
- Extended safety models designed for medical applications

More info

Literature
- Solution guide
- Application guide
- Redundancy in serial-to-Ethernet communications

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AccelePort Xr 920
AccelePort Xem
AccelePort C/X
AccelePort Xe
Digi Neo
ClassicBoard
PC/X
DataFire SYNC 2000
DataFire SYNC/570i
AccelePort RAS

Embedded Solutions

Serial Cards

The Makers of the Original DigiBoard *The #1 selling serial card line in the world.*

High-Performance Serial Solutions

AccelePort® Xp

- Highly integrated, powerful RISC processor based card delivers highest level of intelligence and performance
- Speeds of 921.6 Kbps, bi-directionally on all ports
- 2, 4, 8 or 16 ports on Universal PCI/PCI-X platforms

More Info

AccelePort® Xr 920

- On-board 32-bit IDT RISC processor delivers high performance with speeds up to 921.6 Kbps
- 2, 4 or 8 ports on Universal PCI/PCI-X platforms

More Info

Expandable Serial Solutions

AccelePort® Xem

- Fast, modular system expands up to 64 ports
- RS-232 or RS-422 on Universal PCI/PCI-X or ISA platforms
- Embedded surge suppression

More Info

AccelePort® C/X

- Most widely-used asynchronous cluster technology in the world
- Provides up to 128 RS-232 serial ports on a single slot
- PCI-X and 64-bit slot compatible

More Info

Enhanced Serial Solutions

AccelePort® Xe

- Intelligent serial I/O for small to medium workgroups
- Solutions for 2, 4 or 8 ports on ISA platform

Articles

- PCI technology presentation
- Digi PCI 3.3V/5V and 32/64-bit product list

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- RS-232 and RS-422 options available

More info

Digi Neo®

- 1, 2, 4 or 8 ports on Universal PCI/PCI-X platforms
- Speeds up to 460.8 Kbps
- Large buffers, low latency and baud rate customization

More info

Standard Serial Solutions

ClassicBoard™

- Cost-effective card with speeds up to 460.8 Kbps
- 4 or 8 ports for PCI or ISA platforms
- RS-232 and RS-422 options

More info

PC/X

- Non-intelligent serial connectivity for small systems
- 4 or 8 ports for ISA platforms

More info

Synchronous Solutions

DataFire® SYNC 2000

- High-speed synchronous WAN communications
- 2 or 4 ports
- Ideal for Frame Relay, X.25, SNA and server-based routing

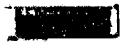
More info

DataFire® SYNC/570i

- Cost-effective digital WAN adapters
- 2 or 4 ports
- DDKs available for custom development

More info

Multi-Modem Adapters (Analog)



AccelePort RAS®

- Integrated modem adapters for high speed analog connections
- 4 or 8 ports
- Full V.90 modem and fax support

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Software and Services
Development Kits

Embedded Solutions

Wired and wireless modules provide a seamless migration path to a fully integrated System-on-Chip solution. NET+Works®, Linux® and Microsoft® Windows® CE support and royalty-free development tools are available. Development Kits and extensive support options lower the risk and increase productivity when using Digi embedded products.

Embedded Modules

- Industry's first interchangeable wired and wireless networking embedded modules
- Built on full range of 32-bit ARM processors with wide selection of peripherals
- Plug-and-play firmware and royalty-free development tools

More Info

NetSilicon® Microprocessors

- 32-bit NET+ARM microprocessors
- Integrated 10/100 Ethernet support
- Fully supported by NET+Works advanced networking software, Linux and Windows CE

More Info

Software and Services

- NET+Works is a high-performance, small footprint, royalty-free RTOS ideal for networking applications
- Support for Linux and Microsoft Windows CE is also available
- Technical support and Digi Professional Services provide assistance and reduce risk during development with Digi embedded products

More Info

Development Kits

- Powerful Development Kits accelerate embedded product development
- Complete Development Kits include all hardware and development software needed to complete an embedded product

Product Literature
- Solution guide
- Application guide

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- Begin application development immediately without waiting for hardware

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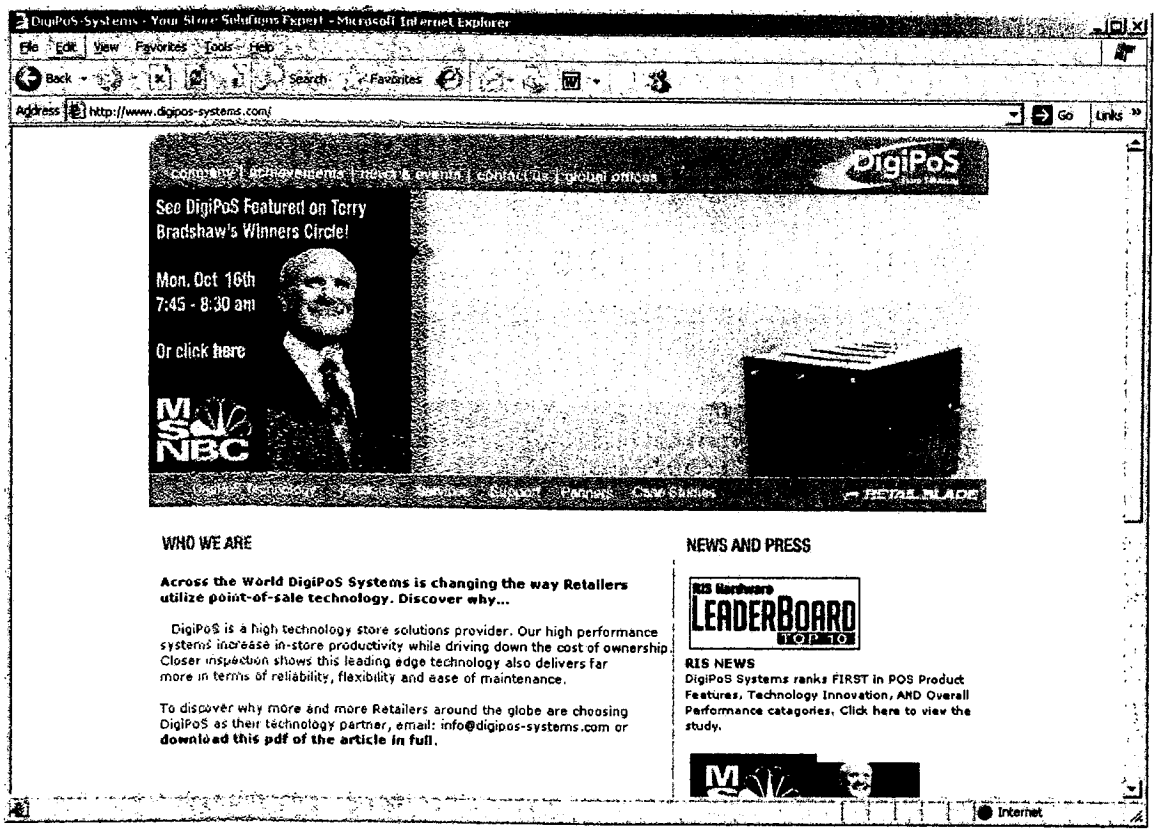


EXHIBIT
Young
Ex 31
10/16/06 ICS

Retail Blade for Harvey Nichols

HARVEY NICHOLS HAS IMPLEMENTED DIGIPOS SYSTEMS' RETAIL BLADE TO HELP IMPROVE EFFICIENCY AND SHOP FLOOR FUNCTIONALITY, AND CUT MAINTENANCE COSTS.

The Harvey Nichols estate has seen rapid growth in the last few years and relatively quickly has had to go from a single store mentality to a point where there are stores across the country. IT, particularly with regards to the Knightsbridge Store, just hadn't caught up.

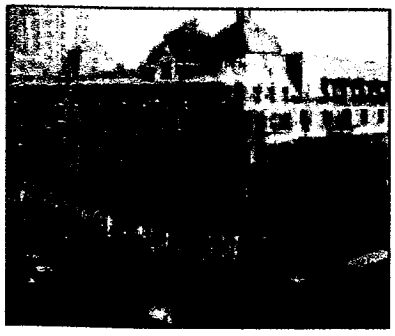
The old EPoS kit, which consisted of PCs as opposed to retail dedicated units, had reached the end of its life. Harvey Nichols was embarking on a new PoS project, mainly driven by Chip & PIN and the desire for new functionality, with Itim Technology Solution's Chameleon PoS system. The Knightsbridge store was also the only remaining store not to have touch screen technology at till point, which needed to be addressed.

The company hadn't originally intended to focus on EPoS – the original driver for their most recent IT change being the retailer's ageing warehouse and merchandising system but, as Martin Schofield, Head of IT comments, "Chip and PIN came along and we had to do something on the PoS side. We needed an EPoS application that supported the latest advances including Chip & Pin compliance."

DigiPoS was selected to provide an EPoS hardware solution for the Knightsbridge store due to its ability to provide a cost effective, innovative solution that would have a considerable impact in improving efficiency and shop floor functionality and in cutting maintenance costs.

Schofield is very clear on his reasons for choosing the DigiPoS solution, "In Retail Blade, DigiPoS were able to provide us with a well-respected, cost effective solution to updating our EPoS. These factors, coupled with the obvious benefits Retail Blade offers in terms of flexibility and ROI, and our strong, established relationship with RTC, DigiPoS Systems' services division, meant our decision to award the contract to DigiPoS Systems was a very logical one."

The Retail Blade system, which Harvey Nichols has implemented, consists of the Retail Blade Host, a passive backplane which houses all the POS connectivity and the Retail Blade, a replaceable motherboard and hard drive which slide in and out of the host, enabling unrivalled



speeds for upgrades, repair or maintenance.

With Retail Blade, it is possible for retailers to maintain a core stock of replacement motherboards which authorised, non technical staff can replace and upgrade in-store in less than 60 seconds. None of the peripherals are disturbed, the 'host' system remains in place and any downtime is cut dramatically.

The implementation of the Retail Blade solution, means Retailers can virtually eliminate the costs of conventional maintenance. In future, they will be able to respond quickly and effectively to where the problem is, potentially eliminating thousands of pounds of maintenance which is there "just in case".

The main motherboard - the Blade - and components have a strong 3 year warranty, but the host system is also covered by a ten year warranty period. As technology develops, retailers will have the confidence that the upgrade path can be limited to the main areas of need – disk storage, processor speed etc, without replacing the whole system and peripherals.

Harvey Nichols completed its EPoS selection process in September 2003 with the intention of implementing the DigiPoS 1.2Ghz system throughout their Knightsbridge store in September 2004. This was following a successful pilot which began in October 2003 with the refurbishment of the Fifth Floor Restaurant, Bar and Café.

However, in November 2004, having been introduced by DigiPoS to the benefits offered by the recently launched Retail Blade, the retailer reconsidered and decided to opt for the new Retail Blade system instead.

Roll out of the new EpoS application was then deferred to the spring of 2005 to avoid any disruption around the Christmas sales period. The retailer was also keen not to roll out Chip and PIN in January because it was waiting to gauge customer perception to the implementation.

Harvey Nichols installed the 150 new tills at its Knightsbridge store over the Easter weekend along with the software to cope with Chip and PIN. The implementation went to timescale and the store was fully operable for next day of trade.

"The store was up and trading as planned on Monday and sales processed into the existing merchandise solution without fault," said Schofield. "The whole implementation went incredibly smoothly. It's the smoothest implementation I've come across."

To date, Retail Blade coupled with the new EPoS application from Itim has been very well received. Sales transactions are now passed on in real time and the new solution has enabled far more information to be made available at till point, allowing far quicker and more efficient assessment of stock availability and position. Till operators have found the new, space-saving touch screens intuitive and easy to use, and the printers to be significantly quicker allowing for much faster transaction times.

The PoS upgrade has made Harvey Nichol's expansion easier and because it plans to open a new store in Dublin this year, it will now be able to cope with multiple currencies.

"However, we are going to realise the real benefits of the DigiPoS solution in the future," comments Schofield. "With the implementation of Retail Blade, non-technical store staff will now be able to affect blade replacements and upgrades without having to rip out the entire PoS to ship back to the manufacturer, as a result we won't lose valuable uptime waiting for a trained technician to arrive."

CONTACT

Digipos
www.digipos-systems.com

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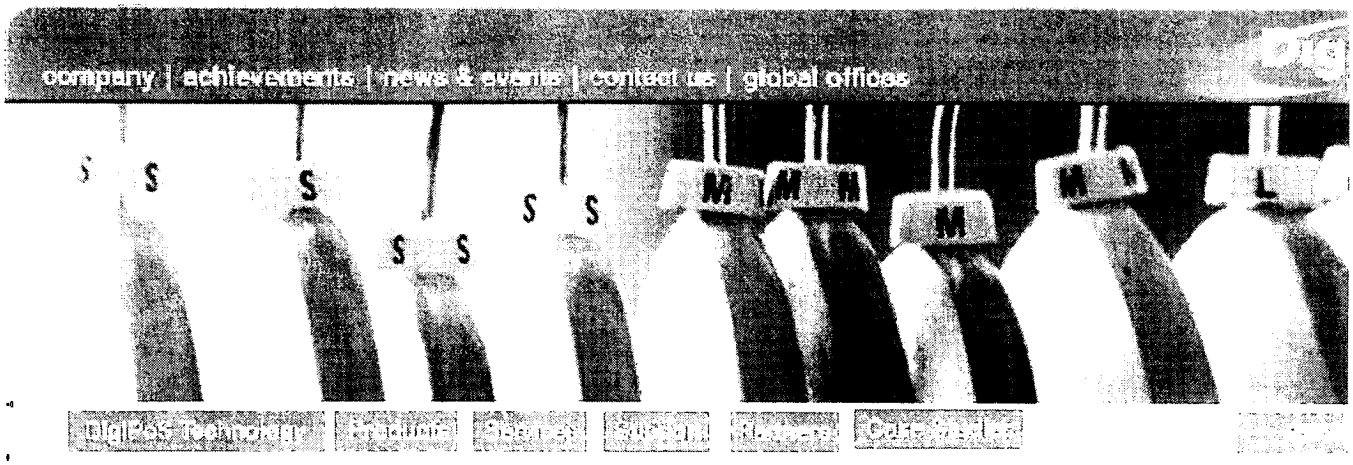
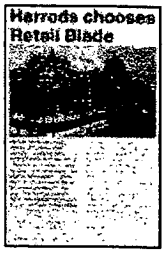


The Company

DigiPoS Systems Group, established in 1994, was formed with a very clear vision: to bring to high technology solutions critical to their success. The traditional hardware options were ofter based systems, that had evolved from the significant IT growth in the 1980's. It was recogniz retailers needed:

- A dedicated, specialist retail technology company
- Technology that was developed to meet their specific needs
- Unrivaled service and support from a single organization committed to the sector

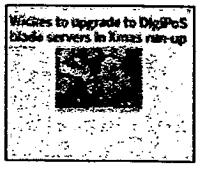
The opportunity was clear - to deliver systems, service and support that was aimed specificall special needs of retailers - to bring retail technology solutions, by design. 10 years on and wil identity under the International Retail Solutions Group, the company has witnessed exception born out of demand from retailers for the company's new technology and specialist retailer su spanning five continents the business has continued to meet the needs of retailers, providing solutions, backed up by first class customer service. The DigiPoS suite of 'Designed for Retail' have established a reputation within the sector for innovation and value - as thousands of ret adopted the new performance standards the systems deliver.



technology; commits to install 950 systems after a meticulous as: several other offerings.

Electronic till systems to support Oasis expansion plan
Computing Magazine, October 2005
Written by May Knight

UK fashion store **Oasis** and sister store **Coast** will upgrade EPoS DigiPoS Retail Blade solution as part of their expansion plans.



DIY Store Wickes upgrades to DigiPoS Retail Blade in Xma:
Computing Magazine, October 2005
Written by James Thompson

Future proofing and expandability key with Wickes EPoS selection Blade offered much more than the competition.

POS Overhaul Improves Inventory Management
Integrated Solutions for Retailers, May 2005
Written by Khristen Chapin

Value Drug Mart replaced its stores' POS hardware and software single POS environment and enable more-informed inventory and replenishment decisions.

Blade Technology Coming to Retail POS
Retail Info Systems News covers the Retail Blade
RIS NEWS, January, 2005
Written by Bob Calandra

Turn POS Data Into Intelligence
Integrated Solutions for Retailers, August 2004
Written by Matt Pillar

Escada Canada's revamped store systems give executives there view of past, present, and future sales, inventory, and customer

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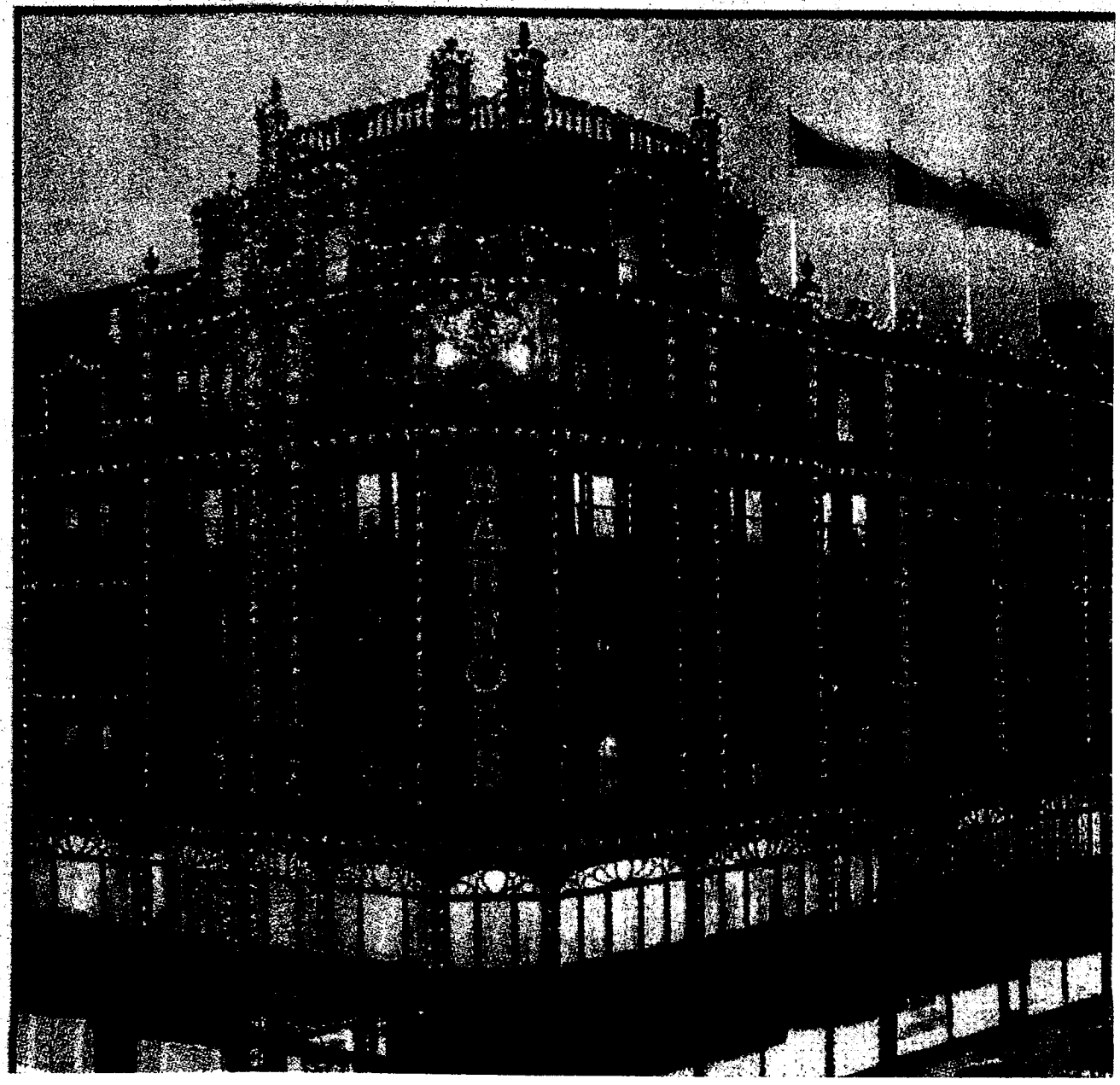
Retail Blac



Integrated Solutions For RETAILERS

POS Overhaul Improves Inventory Management

Value Drug Mart replaced its stores' POS hardware and software to create a single POS environment and enable more-informed inventory and replenishment decisions.

Integrated Solutions For Retailers, May 2005
Written by: Khristen Chapin

Imagine managing POS data and systems in more than 50 stores, each of which use a variety of different POS systems. You probably have a headache just thinking about it -- and can understand the position Gary Penner, project manager for Value Drug Mart Associates, Ltd. (VDM), was in. VDM oversees the independently owned Value Drug Mart pharmacies and Apple Drug pharmacies.

All of VDM's stores operated on discontinued, outdated POS software and hardware. Because the stores used a variety of POS applications and data formats, it was virtually impossible for the DC to have access to consolidated store sales information. Supporting the various systems was difficult, too. VDM's IT department was overburdened with having to know about many different retail systems. "For a while, we tried to write interfaces to all the different POS systems out there, so we could at least send the stores updated merchandise information," says Penner. "But with so many different systems, it became an exercise in futility." To compound matters, some of the applications and hardware models used in the stores were in the process of being discontinued.

Streamline Store Replenishment By Integrating POS, DC

VDM wanted to use store sales data to improve its replenishment process. The existing setup was not conducive to this because store sales information could not be easily aggregated. VDM decided to upgrade its stores' POS systems -- starting from scratch. "We needed communication and integration between the DC and all of the stores," says Penner. "To do that, we needed a universal system." The store owners got together and decided what functions they wanted out of POS technology. VDM formed a POS committee represented by six stores that then looked for technology that met those requirements. After viewing 21 different retail software products, VDM ended up choosing Magstar's TOTAL RETAIL solution, an enterprise retail management system. VDM integrated the new software with its existing DC system so that, once the upgrade was up and running, sales information could be used for store replenishment.

While VDM was upgrading its POS software, it decided to address the IT burden of maintaining equipment by upgrading its POS hardware, as well. The group implemented DigiPoS' Power POS hardware, choosing the vendor for its available technical support. VDM also integrated a frame relay WAN (wide area network) for payment processing, using network routers from Cisco and Adtran.

The most difficult aspect of VDM's POS overhaul was moving all of the disparate data at each store into the new system. "Data conversion was a nightmare," says Penner. "Almost every store's installation was the equivalent of a

corporation performing one data conversion. Imagine doing that 30 times over a few months." An added complication was that each store wanted slight variations in the system setup. "Because the stores are independently owned, each owner runs his or her business differently," explains Penner.

Integrated POS Solution Brings Merchandise Visibility

Because VDM replaced its stores' entire POS infrastructures, the store managers and employees faced the task of relearning how to do their jobs. For each installation, VDM met with the store's employees and conducted a four-day training session at the DC, educating employees on the new system. After the installation was completed, VDM held another four-day training session, this time at the store, to apply the knowledge to the actual system.

With the POS overhaul in place, all the stores operated on a standard POS platform. VDM's DC can see store sales data, and when stores make business and purchasing decisions, the data is already at the DC. "Now, slow-moving merchandise can be more easily identified, and new merchandise can be introduced more quickly," says Penner. VDM is still experimenting with the data it can pull from the streamlined system, and it hopes its buyers can use the data to determine what inventory is carried at the DC.

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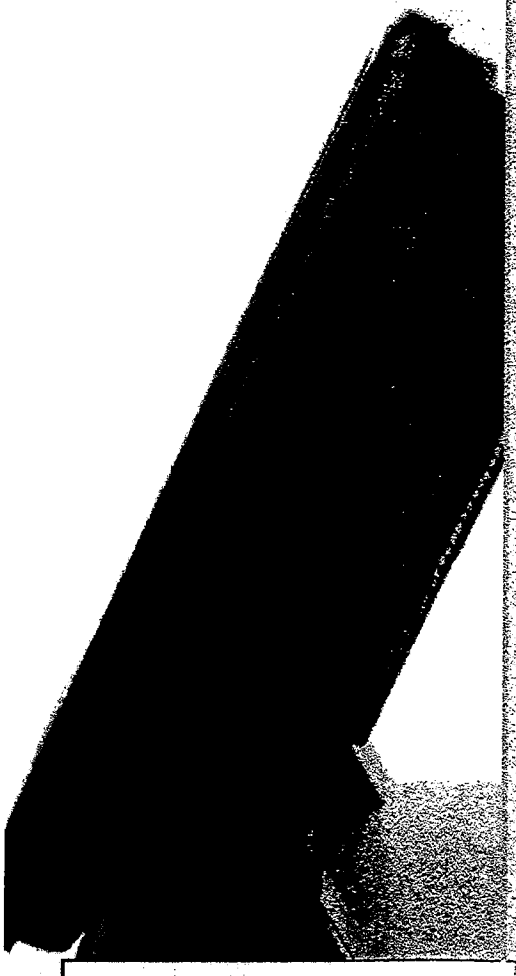
DigiPoS SYSTEMS

DigiPoS Touch PoS

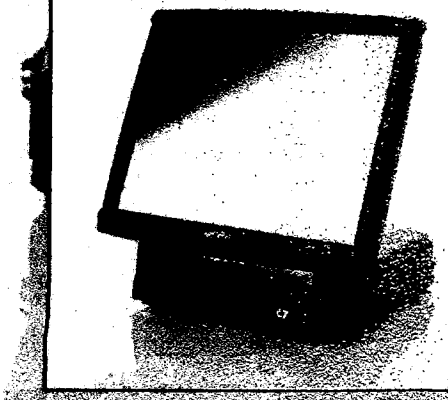
* 15" All-in-One Touch PoS System



The DigiPoS Touch PoS is the new innovative semi-integrated touch screen point-of-sale system with a stylish design, specifically for the retail, hospitality and leisure market.

It features advanced technology, outstanding reliability and utilizes Intel processing power for high-performance demands. Furthermore, the Frontier is highly-robust to endure the knocks and spills of harsh environments.

While conserving valuable counter space, the 15.1" TFT LCD Panel Display offers wide angle adjustment for true visibility and with the added option of the 10.4" LCD Display, the retailer can enhance the customer experience providing instore advertisements and special offers. Alternatively the Standard 2 line / 20 character Rear Customer display is available.



ADVANTAGES

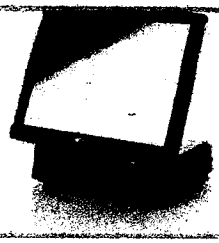
- o Easily integrated with a Customer Display or Secondary LCD Display
- o Fingerprint recognition system
- o Smart card reader and biometric reader options
- o Compact Flash Drive
- o Lockable front panel
- o 15" Thin Bezel Touch Monitor
- o Extremely small Footprint

DigiPoS SYSTEMS

1 866 847 2767
www.digipos-systems.com

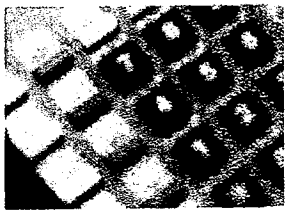
Specifications:

15" All-in-One Touch PoS System



MODEL	All in One Touch PoS System (Socket 478/370 Version)
LCD Specification	15" TFT LCD Panel Display
Touch Panel	Optional Fujitsu 4 wire or 3M / ELO 5 wire 15" Touch Panel
Resolution	Max. 1024 x 768 pixel
Monitor Adjustment Angle	0° - 90°
CPU	Support Intel P4 CPU to 3.0GHz / Celeron to 2.8GHz Socket 478 CPU
Memory Module	Support 184pin DDR memory module x 2 max. to 2GB (DDR400)
BIOS	Award BIOS with Enhanced ACPI 1.0 / PnP / APM / DMI / ESCD / PCI bus 2.1 / On Now / DRAM ECC
Chipset	North bridge: Intel 865GV, South bridge: Intel ICH5
Parallel Port	Support one LPT port (SPP / EPP / ECP). IRQ and address selectable by BIOS setup
Serial Port	COM1, COM2, COM3, COM4 On Board. IRQ selector by BIOS setup (Jumper-less) and DC 0 / 5 / 12V output on pin 9th by jumper selector. Each Voltage Output with Poly Switch Protector
AGP 3D Graphics	Intel 865GV AGP, Share memory from 8MB up to 64MB (DVMT*)
FDD	None (Optional USB external FDD)
HDD	3.5" HDD (Optional 2 x 2.5" HDD KIT)
CD-ROM	Slim Type 24X CD-ROM
USB	Four USB ports (USB 2.0) support Windows 98 / 2000 / XP. (Two USB ports located at Front Panel, two Powered USB ports located Rear Panel)
Enhance PCI IDE	On board PCI Bus Master IDE 1 / 2 support Ultra DMA 66/100/133
Ethernet Port	Intel 86562E Ethernet Chip on Board (10 / 100 Base T, Optional Giga bit)
Audio Port	Realtek ALC203 AC97 CODEC on board
PS/2 Keyboard/Mouse Ports	PS/2 Type
Front Panel	- ATX Power Trigger Switch - Reset Button - PS/2 Mouse Port - 4 LED indicators: Stand By, Power On/Off, HDD state and LAN Status LED - CF flash memory Type I/II Socket - 2 USB 2.0 Ports - Audio for MIC in - Slim type CD-ROM - Door with Key lock
Rear Panel	- AC main power switch - PS/2 keyboard port - DC 12V output for LCD Monitor - DC 24V output for POS Printer - COM 1/3/4 DB9-pin output ports - LPT D-SUB 25-pin output port - RJ-45 Ethernet output port - 2 Powered USB 2.0 ports - 2 12/24V selectable Ports for Cash Drawer
Thermal Solution	- 1 Low Noise 60mm FAN (Two ball) for CPU Heat pipe (P4 has one FAN for North Bridge chip) - 1 Low Noise 60mm FAN for internal PSU
Expansion Slot	None
M/B Size	240mm (L) X 220mm (W) Flex ATX
AC Power Supply	ATX 250W internal PSU (UL, CSA, VDE). AC 100 to 240V, 50Hz/60Hz Auto switching
Product Size	355mm [14"] L X 350mm [13.75"] W X 340mm [13.5"] H
Package Size	470mm [18.5"] L X 460mm [18.25"] W X 300mm [11.875"] (H)
Compatibility O/S	DOS/OS2 V2.1/SCO XENIX: V2.3.2/SCO UNIX V3.2/NOVELL/WIN3.1/95/98/2000/XP/NT4.0
Operation Temperature	0°C to 40°C (without HDD up to 50°C)

Global Offices



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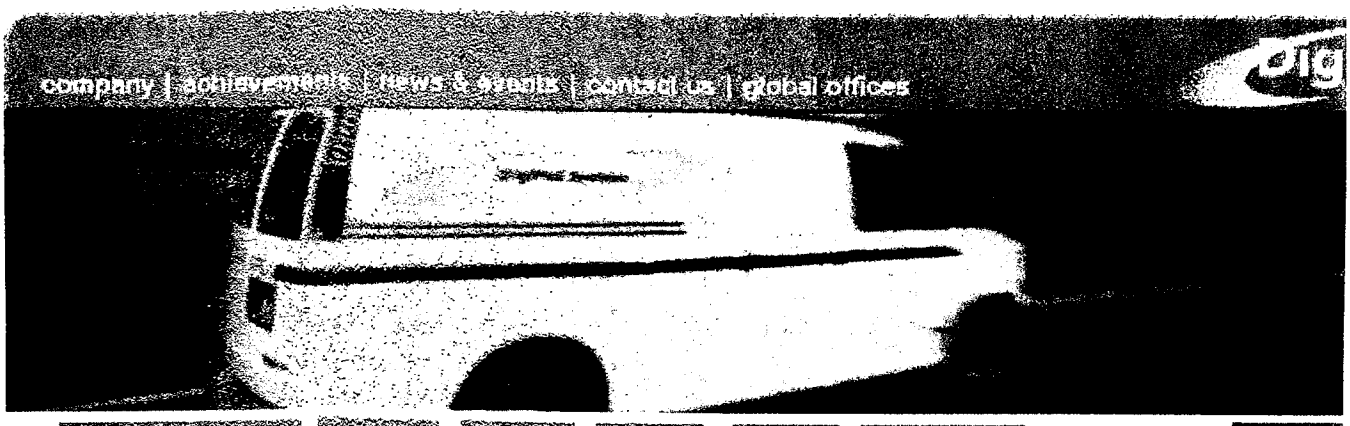


Drivers and Utilities | Manuals | Partner Support Login | RMA | Remote Diagnostics Login

DigiPoS Support & Downloads

Drivers & Utilities

Here you will find a variety of product drivers and operating materials. Should you require mc assistance of a technical nature please call our **Technical Support Team at 1-866-847-2767** for further assistance.

Manuals

For your reference, we have placed a number of downloadable operating manuals for many o DigiPoS products and peripheral range.

Partner Support Login

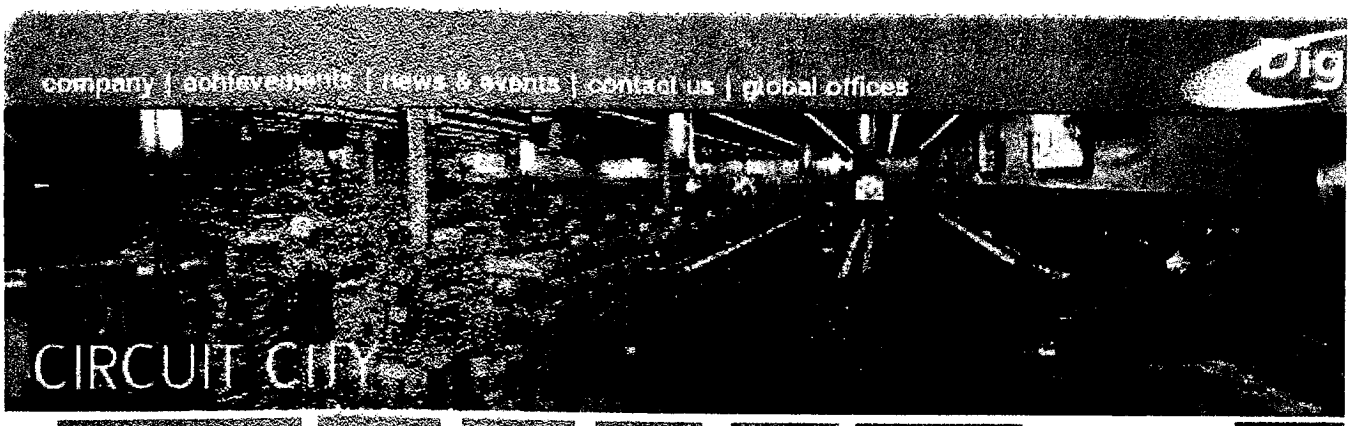
For those clients who access to our customer support portal. You may also register for a pass enter this part of the site, or call 1 866 847 2767 to request a log in.

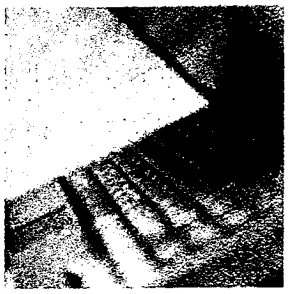
RMA

On the rare occasion that you need to return one of our products for maintenence, you may u online RMA form to generate your RMA number.

Diagnostics

This will take you outside our website to our exclusive remotely hosted DigiPoS Diagnostics p must have a pre-approved password in order to log in to this site.





Case Studies

Circuit City

Circuit City, with more than 41,000 employees, is one of the USA's leading retailers of consu electronics, personal computers, software, movies, music and games. With headquarters in I Va., Circuit City Stores Inc. is committed to excellence in customer service via knowledgeabl trained sales staff.

The company is one of the USA's largest retailers with more than 630 stores. Thousands of c pass through these outlets every day benefiting from the attractive 'Price Matching' and 'Has returns policy which has helped the company become a popular and highly successful group first store opened as Wards in 1949.

Circuit City had a requirement for a comprehensive PoS solution incorporating PoS units, cat management, diagnostic software and printers in what would become an installation of more 22,000 systems. The company selected the powerful DigiPoS system as the hardware solutic that the company remains at the forefront of technology, whilst delivering fast and efficient s consumers across the country. The DigiPoS units were identified as the first choice solution f City only after a rigorous selection process, which saw DigiPoS Systems excel over several o established, traditional PoS suppliers.

David Nelms, assistant vice president of MIS for Circuit City said the DigiPoS system provide value added capabilities in addition to a superior hardware solution:
"From the outset, DigiPoS Systems demonstrated a tremendous amount of flexibility in work to address our specific needs in a cost effective manner. They worked closely with us to ensu seamless integration with a diverse set of peripheral devices, as well as our legacy systems. important, they worked diligently with us to provide an extremely robust deployment and su infrastructure for the DigiPoS devices."

Key Partners

Partners have been an integral part in the growth of the DigiPoS Systems Group. Collaboratic technology development, cooperation over specific projects and refining the services and offe retailers have all been enhanced through relationships with organizations across the spectrun

Partner relations range from training through to peripheral supply and to systems and suppor that ensure retailers across the globe have the confidence of carefully selected specialist part worked alongside the group.
At DigiPoS Systems North America, we value and celebrate the relationships and the offering: partners give to enhance the POS industry. Please see a selection of our valued partners and offering by visiting their website.

Automation

CCi:
CCi draws on its expertise in both retail and technology to deliver retai solutions including ERP installations and Business Process Optimization impressive suite of retail automation products, services, and expertise foundation of its successful installations worldwide. Retailers choose C(stop provider who designs, integrates, installs, deploys and services re automation solutions.
www.cciint.com

Software

Auto~Star:
Auto~Star Compusystems has been in the business of developing "stat POS and retail management software for over 20 years. They bring hig software applications to pharmacy, grocery, and fuel retailers across N www.auto-star.com

JPMA:
JPMA is a worldwide supplier of Point-of-Sale software to the retail indi than 126,000 lanes operate JPMA designed software throughout the w www.jpma.com

MAGSTAR:

A leading provider of retail enterprise systems to small to mid-sized hard/soft line operations throughout North America and the Caribbean Selected for four consecutive years to the RIS News Leaderboard.
www.magstarinc.com

RAYMARK:
Raymark provides the Xpert-Series(tm) integrated retail suite and pro experience in the areas of implementation, training and customer supp include merchandise management, POS, planning and reporting in a re environment.
www.raymark.com

SDI:
SDI is dedicated to the development, implementation and support of fi integrated retail solutions that are designed to reduce store operating costs, increase management effectiveness and provide the best possib shopping experience for the customer.
www.sdiretail.com

Hardware

EPSON:
Epson is one of the leading suppliers of advanced POS technology solu services for a wide range of industries including retail, banking, hospit supermarkets.
www.pos.epson.com

TIPRO:
A global leader offering a full range of programmable keyboards that c combined with various modular user identification, pointing devices an readers.
www.tipro.net

PREH:
With our standard keyboards, OEM keyboards, keypads and touchscre partner for individual customized solutions. Furthermore, Preh has a g know-how and many years of experience in OEM and project solutions
www.preh.com

METROLOGIC:
We are experts in optical image capture and processing solutions. We expertise to design, manufacture and market sophisticated imaging an solutions serving a variety of point-of-sale, commercial and industrial a
www.metrologic.com

Service and Support

AM/PM SERVICE:
AM/PM Service, one of Canada's largest Point of Sale (POS) companies point of sale systems, POS software, and POS support. AM/PM Service held company and was founded in July 1987. We currently provide on- excess of 20,000 customers with 50,000 Point of Sale systems, scanne

automation systems.
www.ampmservice.com

Source Support

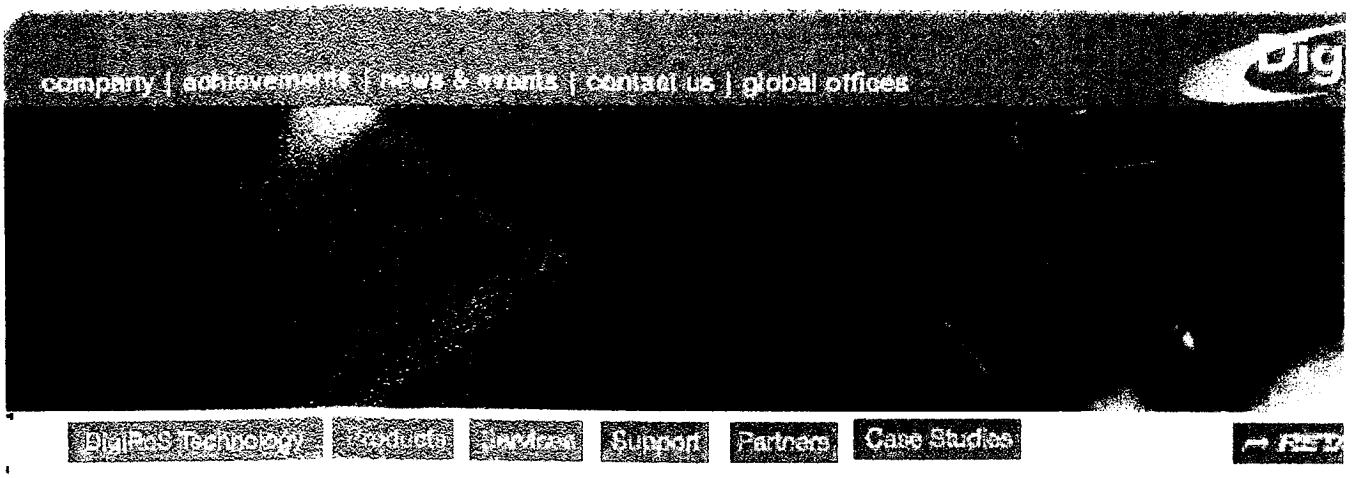
SOURCE SUPPORT:
Source Support Services provides one source to meet all our customer computer support needs. We do this through cost-effective IT manage clients' hardware infrastructure. This saves time and money by having to insure that computer system repairs are handled in a timely and eff manner.

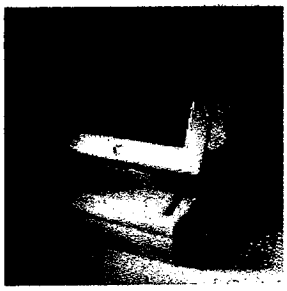
www.sourcesupport.com

VAR and Channel Partners

BlueStar

BlueStar:
BlueStar is the #1 Solutions-based distributor of specialty electronics s Added Resellers that service the point-of-sale, security and automatic vertical markets. BlueStar, BlueStar Canada and BlueStar Latin Americ value-add partners to bring new and proven technology to the comme enterprise. BlueStar is committed to doing Whatever it Takes to help g business of our VAR partners.
www.bluestarinc.com





DigiPoS Technology

What is a DigiPoS?

The DigiPoS range of systems are purpose-built retail and hospitality point of sale (computers.
Their design was created out of a need for flexible POS solutions, allowing retailers to custom systems to fit their specific needs, thus reducing costs and increasing their return on investm

The DigiPoS does this by offering a wide range of features such as an external power supply (easily be swapped out in case of failure), powered serial ports (increased conectivity to other devices), internal fuses (to block mother board failures as a result of power spikes), as well a security and cable management features.

In addition, and most importantly, it comes with the DigiPoS Diagnostics software to locate a failures in seconds (even before it happens!) saving valuable time and money for tech suppor

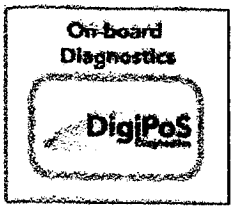
We stand behind the DigiPoS range of systems and peripherals so much that we have backed system up with the industry's only **three-year warranty program**, which demonstrates our commitment in providing high quality POS hardware for even the most demanding environme

NEW!

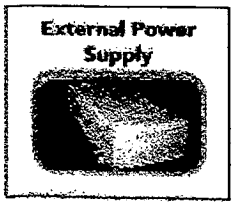
PETAL BLADE

INDUSTRY'S ONLY 3 YEAR

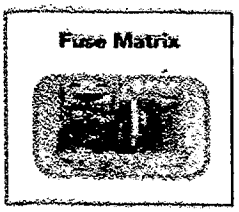
FEATURES & BENEFITS:



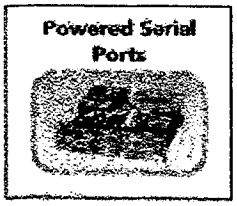
Embedded on the 8MB Disk on Chip which ships with every DigiP is a diagnostic utility called **The Global Systems Manager** that significant information about the DigiPoS base unit and peripher Because it boots directly from the disk on chip, this utility can eli software/hardware finger pointing by determining if a peripheral operating properly external to the application and operating syst addition, this feature is extremely useful for improving service le depot repairs because it allows the right component or part to ar store after a simple phone call.



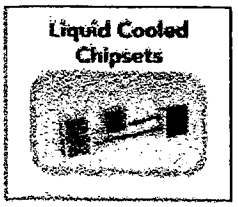
The DigiPoS power supply is an external unit for a number of rea and foremost, it allows for a smaller footprint base unit while still ample power for the base unit and all of the peripheral devices (a power supply is standard, compared to 40-80 watts from a tradit The second reason for the external unit is the ease of replacemer supply in any PC or POS terminal is the single largest point of fail making it external to the unit with a positive latching connector, replace in the event of a problem and completely secure when cc the unit.



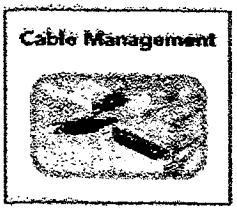
Unfortunately, power spikes, brownouts and static electricity are unavoidable hazards. The consequences of power related probler computer equipment are significant and sometimes costly since i the motherboard that is affected by the event. The DigiPoS syste bank of fuses built into the board to minimize the impact of such Should a power surge or static hit the DigiPoS, one of the interna blow before damage to the motherboard or other internal circuitr The fuses themselves are standard automotive fuses, which are l available and inexpensive compared to the alternative of a blown motherboard. In addition, this feature also protects all RS232 coi peripherals.



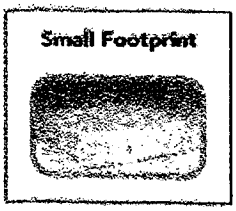
One of the many drawbacks of using a standard PC / Cash drawe configuration is that each peripheral device requires its own exte supply. The DigiPoS system provides four powered serial ports th power to be provided to each connected device through the exist cable. This feature eliminates the need for individual power supp the number of cables at the point of sale in half. Not only does th more efficient configuration, it will improve reliability by reducing of cables required.



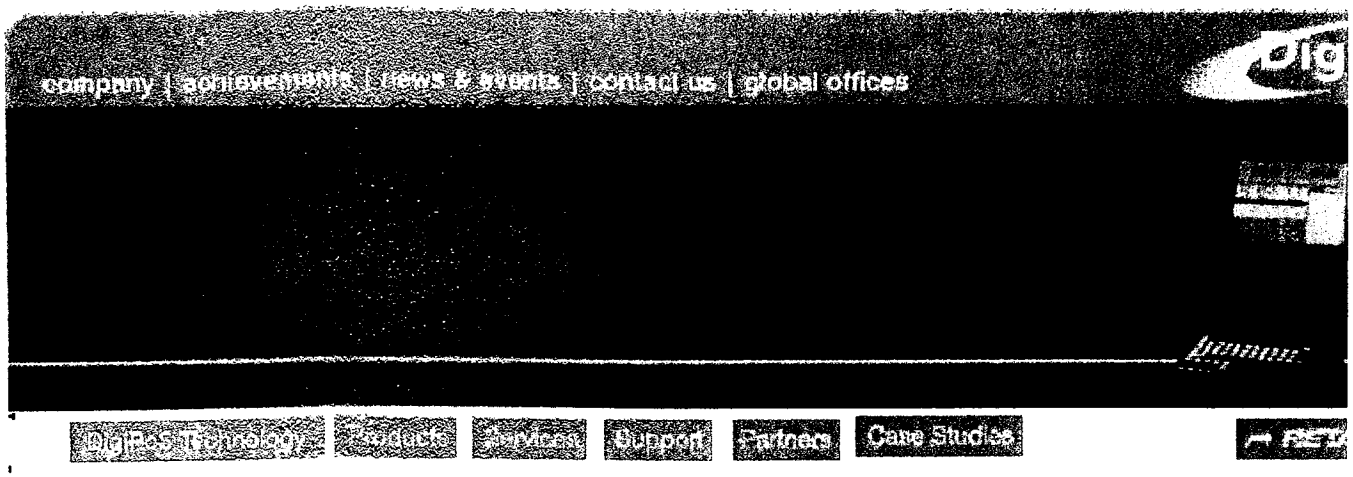
In creating a retail specific terminal, it is extremely important to the possible environments where the unit will be required to func base units are often installed in poorly ventilated areas or have c obstructed airflow to and from the unit. This fact, along with the heat generated by newer CPU chipsets can produce overheating standard PC cooling technology. DigiPoS' unique liquid cooling te radiates heat away from the CPU and graphics chipsets, keeping cooler than a traditional cooling fan approach.



Powered serial ports eliminate the need for external power suppli a step further, DigiPoS Systems has created cable sets that allow reduction in cabling and better identification of the cables that ar For example, a typical receipt printer requires a power cable, an cable and a cash drawer kick cable. DigiPoS Systems has develo cable that houses all three functions. The cable is easily identifie therefore makes telephone support significantly easier along with reduction of clutter and mess behind the register. An optional rea the DigiPoS system adds to the management of cables and reduc chance of prying eyes and hands removing a cable from the back For above counter installations, this is often a necessity.



As retail space becomes more expensive, it is increasingly import available space be used to its fullest potential. The DigiPoS syste retailers to choose a powerful, retail purpose-built open platform a minimum of space. At 11" x 11" x 3", the DigiPoS system is ide valuable inches are at a premium.

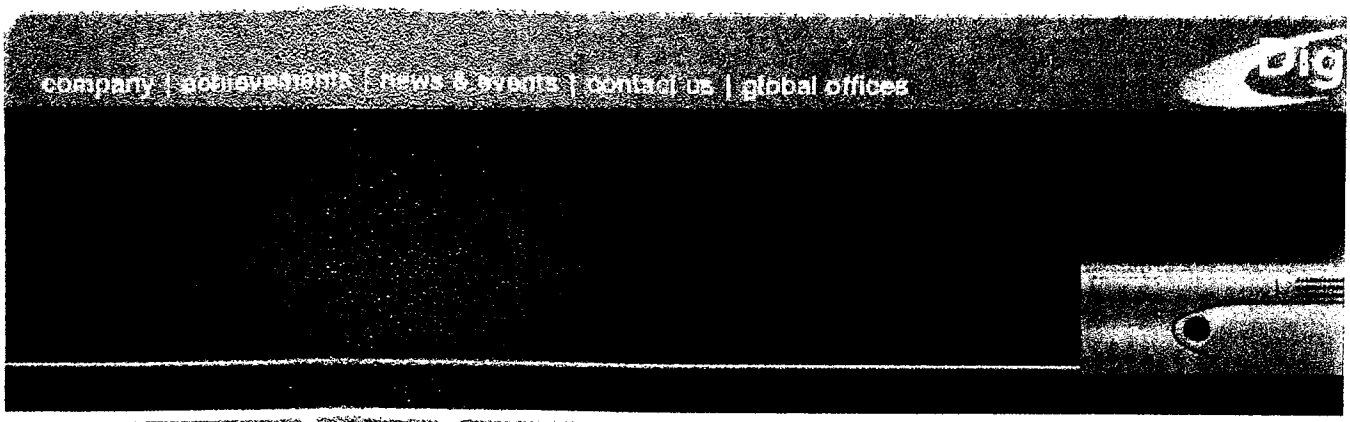


Products

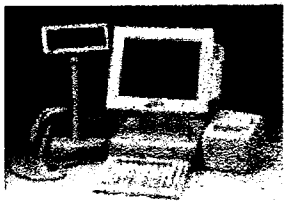
DigiPoS for Retail | DigiPoS for Hospitality

DigiPoS Power PoS . DigiPoS iBox . DigiPoS Thin Client . DigiPoS Retail Blade . DigiPoS Touch PoS

19



Systems: NEW Retail Blade™ Power PoS iBox Thin Client TouchPOS To Peripherals >>



DigiPoS for Retail

We know Retail...
From our product design, to our industry experienced staff, to our company ethos, one thng is for sure, DigiPoS is synonymous with Retail. We have worked hard in the past 10 years to identify retail point of sale problems and create a range of solutions that are flexible in nature to fit each retailer's specific needs. Coupled with best-of-breed peripherals, the DigiPoS is any retailer's optimal solution.
No retailer is alike, so why should their POS system solution be?

INDUSTRY'S ONLY 3 YEAR

The DigiPoS range of retail designed systems include:
- NEW!! **DigiPoS Retail Blade™** - Extend the life of your POS Investment!
- **DigiPoS Power PoS** - The 1.2GHz small footprint system
- **DigiPoS iBox** - Legacy 46xx Migration Solution
- **DigiPoS Thin Client** - Thin functionality, large ROI

For the DigiPoS Extended On-Site Service & Support Program, call 1 866-662-4787 for assistance

The DigiPoS coupled with our global relationships with POS peripheral manufacturers such as Epson™, Metrologic™, Preh™, and Tipro™ help to create the optimal retail point of sale solution.

- **Receipt Printers**
- **Barcode Scanners**
- **LCD's & CRT's**
- **Keyboards**
- **Customer Displays**
- **Cash Drawers**

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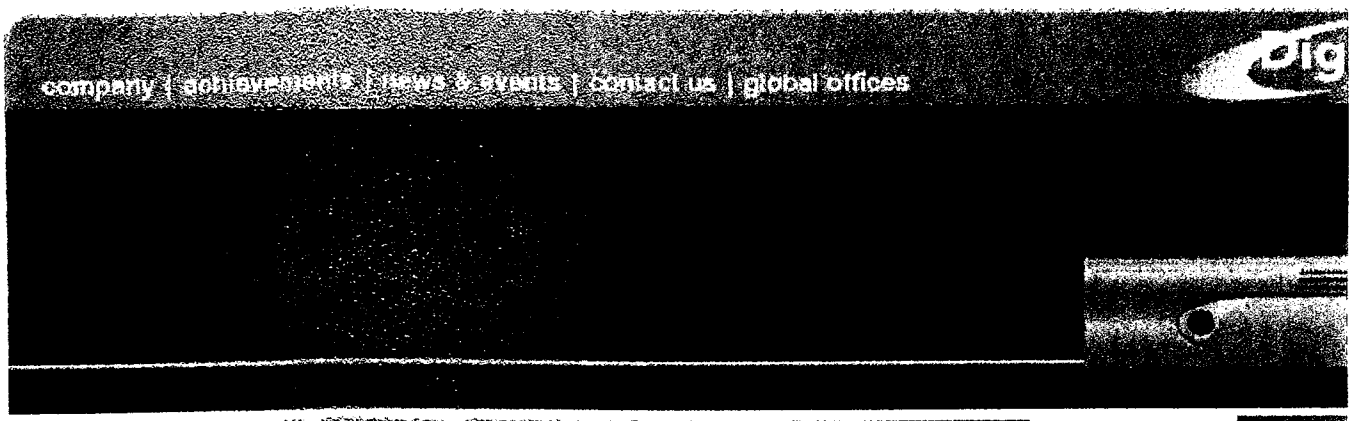


Systems: NEW Retail Blade™ Power PoS iBox Thin Client TouchPOS To Peripherals >>

• **Experience the DigiPoS difference...**

INDUSTRY'S ONLY 3 YEAR

DigiPoS Power POS

Why is the DigiPoS Power POS 1.2 the critical success factor for top retailers?

It's simple: We listen to the intense demands of retailers and deliver a hardware solution completely exceeds their expectations. We have taken everything the world's largest retailers for and engineered a technological breakthrough in retail hardened, value packed point of sal that thrives with ease in the most challenging environments.

The **DigiPoS Power PoS** unit is a retail specific machine. Its small footprint, powered serial | of maintenance, on-board diagnostics and reliability make it a natural choice for ones POS ha requirement. The system also features:

- 1.2 GHz processor
- 256 MB of Memory
- 20 GB hard drive
- 3.5" floppy
- 8MB Disk-on-Chip with diagnostics
- Three-year warranty

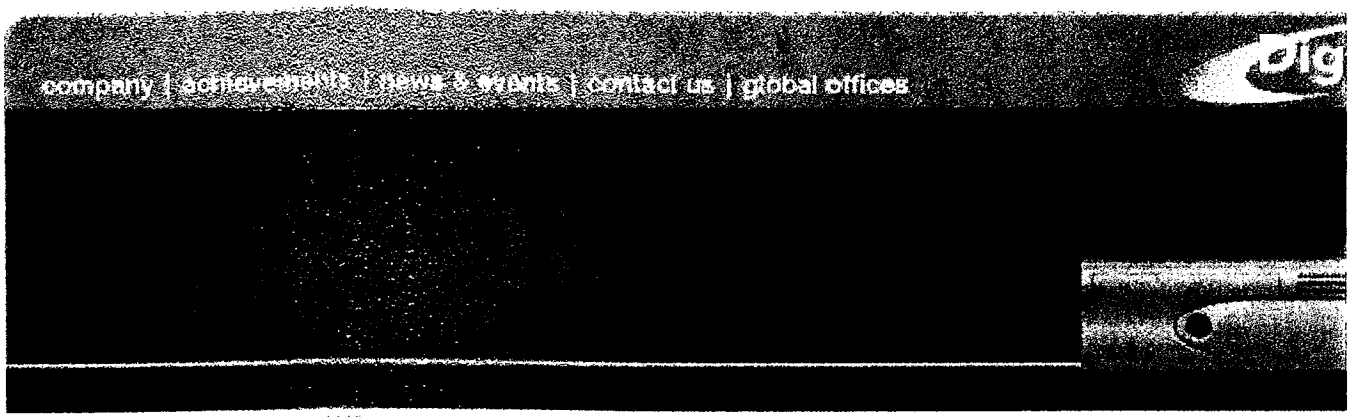
Power POS technical specs - Pl

Ado

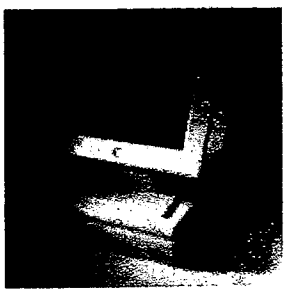
The reality is that it takes more than a white box with a good price to maintain maximum upt hardware reliability, it takes a way of thinking. The kind of thinking and precision engineering find inside every DigiPoS.

CASE STUDIES:

- **Hard lines US Retailer BENNY'S updates aging POS terminals with DigiPoS...(more**
- **Large US electronics retailer CIRCUIT CITY chose the DigiPoS Power POS... (more)**
- **Canada's VALUE DRUG MART selected the DigiPoS as their POS solution... (more)**
- **High End fashion retailer, ESCADA CANADA selects the DigiPoS 1.2 system... (mor**



Systems: NEW Retail Blade™ Power PoS iBox Thin Client TouchPOS To Peripherals >>



DigiPoS iBox Migration Solution

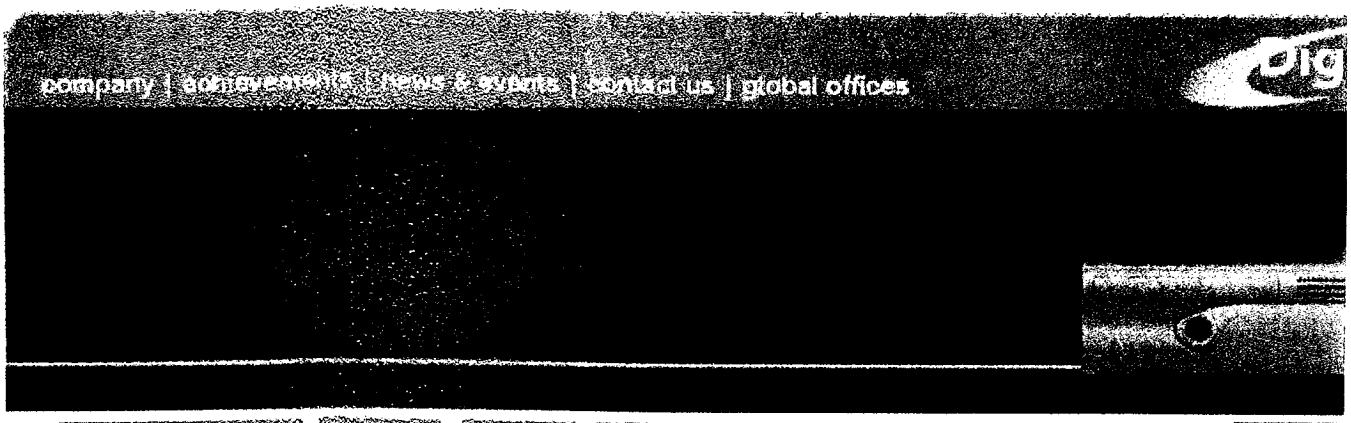
DigiPoS embarked on the iBox project in an effort to provide a technology gateway to those r currently use legacy IBM 468x and 469x technology. By designing a base unit that will allow peripheral component use, DigiPoS will deliver the processing power necessary to run the mo POS applications without a full-scale replacement of their POS hardware. The end result is a r strategy that will offer retailers all of the operational and service benefits of newly developed application technology immediately, and the ability to renew or replace peripheral devices wh the need arises.

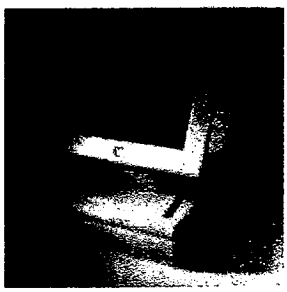
Now available in a Retail Blade™!

iBox technical specs - Pl

INDUSTRY'S ONLY 3 YEAR

The reality is that it takes more than a white box with a good price to maintain maximum up hardware reliability, it takes a way of thinking. The kind of thinking and precision engineering find inside every DigiPoS.





DigiPoS Thin Client

The DigiPoS Thin Client is specially designed for Thin Client applications. This device offers an alternative to the traditional PC-based solutions available on the market toda Essentially a browser and also known as a 'dumb terminal', the Thin Client devices are driven the back office or head office servers. This solution requires close attention, particularly from deploying an ASP or Java based software package, or those looking at a server centric platfor

The benefits of utilizing a Thin Client system are numerous. Some of those include:

Now available in a Retail Blade™!

INDUSTRY'S ONLY 3 YEAR

- A Centralized point of administration
- Increased performance with decrease in risk
- Immune to viruses
- Lowers your total cost output
- Maximizes up time
- Low maintenance
- Low power requirements, low electricity costs

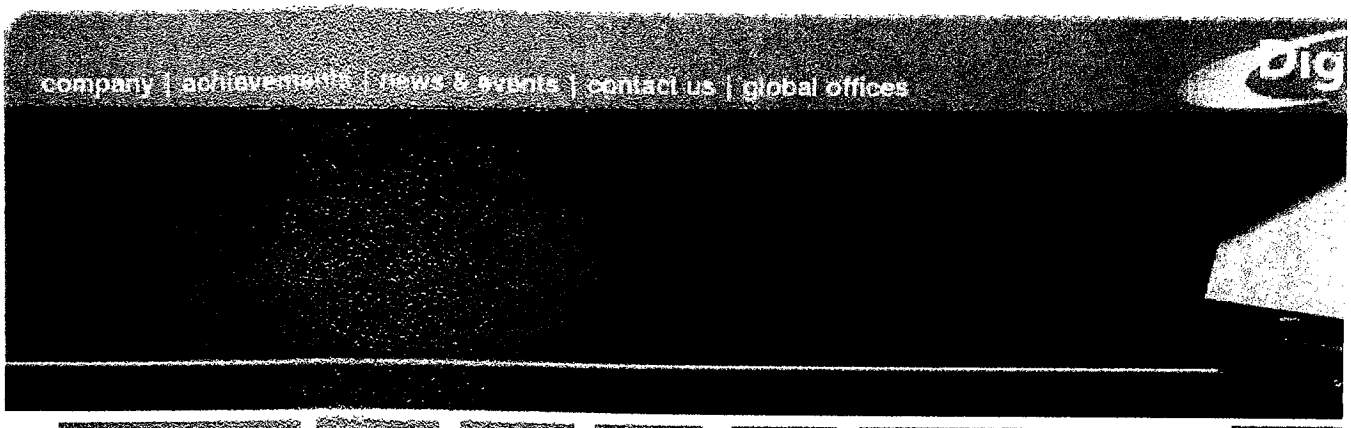
Thin Client technical specs - Pl

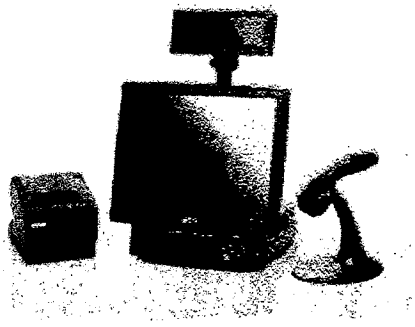
Ado

The reality is that it takes more than a white box with a good price to maintain maximum up hardware reliability, it takes a way of thinking. The kind of thinking and precision engineering find inside every DigiPoS.

FREE DOWNLOAD!! **THIN CLIENT WHITE PAPER:**

- **DigiPoS Thin Client: Who ever said dumb wasn't effective?**





DigiPoS for Hospitality

So you've seen what we can do for Retail... Now look what we can do for Hospitality!

From our product design, to our industry experienced staff, to our company ethos, one thng is for sure, DigiPoS is synonymous with POS. We have worked hard in the past 10 years to identify retail point of sale problems and create a range of solutions that are flexible in nature to fit each retailer's specific needs.

Because of our explosive growth into the Retail sector, we would like to introduce to you the newest edition to the DigiPoS range of POS products for the Hospitality market!

TouchPOS technical specs - PDF 83k

INDUSTRY'S ONLY 3 YEAR

The DigiPoS coupled with our global relationships with POS peripheral manufacturers such as Epson™, Metrologic™, Preh™, and Tipro™ help to create the optimal retail point of sale solution.

- **Receipt Printers**
- **Barcode Scanners**
- **LCD's & CRT's**
- **Keyboards**
- **Customer Displays**
- **Cash Drawers**

EXHIBIT
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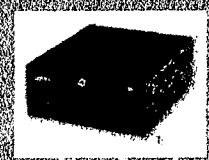
RETAIL BLADE™



DigiPoS Systems Is Proud to
Introduce a Disruptive Technology
Exclusively for the Retail POS Market....

Go ahead, compare it... we DARE you!

DigiPoS

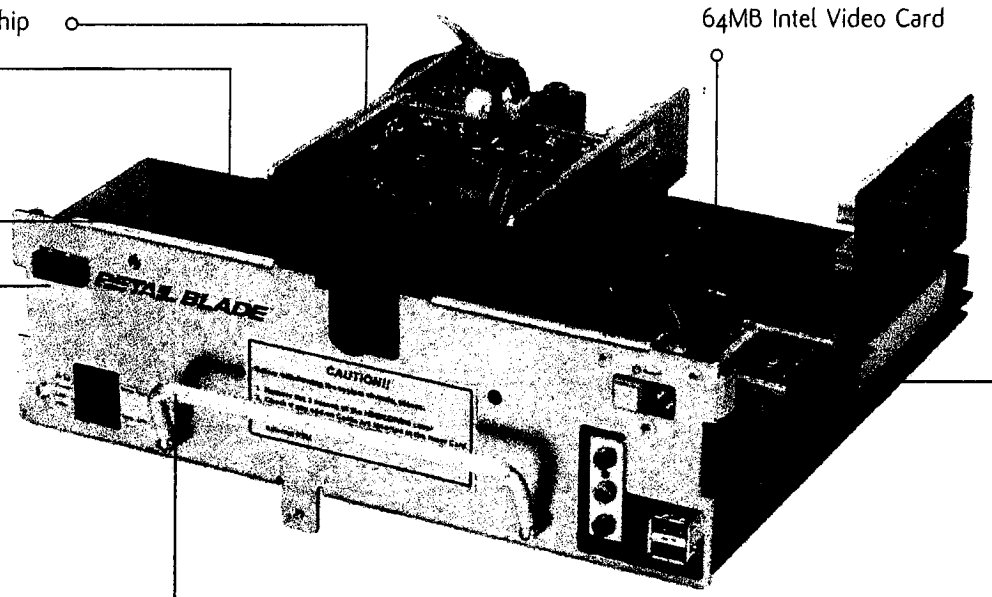
"In retail, it's all about getting more from less. Retail Blade genuinely represents the kind of thinking that drives cost of ownership down while extending the life of POS investments. It's about time that retailers got more options; more flexibility and the benefits of blade technologies that reach beyond the data center and out to the point of sale."

- Robert Marano of the Advanced Technology Group at PricewaterhouseCoopers

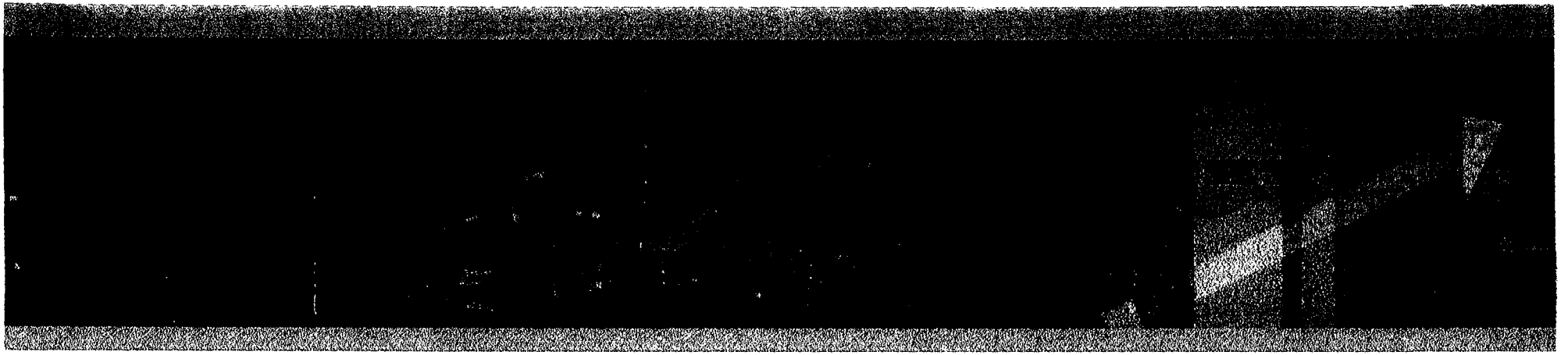
RETAIL BLADE™

The Host

RETAIL BLADE™



Retail Blade | ***Simplicity Saves!***



DigiPoS Systems Retail Blade™ is the ONLY electronic point of sale platform that enables customers to maintain compatibility, configurations and installations while extending the performing life of their POS investments...

...Beyond a Full Decade.

DigiPoS Systems Retail Blade™ challenges all competitors to measure up in extended life cycle, flexibility, openness, power management, ruggedized construction, and self service designs that quantifiably deliver the lowest total cost of ownership and highest ROI.

DigiPoS Systems Retail Blade™ delivers an entire family of innovative POS systems for every budget and performance requirement, and allows for upgrades without destroying your original investment!

DigiPoS Systems Retail Blade™ Simply Delivers Savings... Simply.

RETAIL BLADE™

DigiPoS SYSTEMS

The Foundation

THE RETAIL BLADE™ HOST

Remote Real Time Diagnostics

Removable HDD and CD ROM

› Clever Connectivity

Intelligent Power Management

Five Stage Proactive Heat Management

Easy In-Store Self-Service Backplane

RETAIL BLADE™

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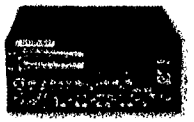
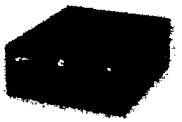
RETAIL BLADE™





Retail Blade™ Host: Specifications

The foundation of the Retail Blade™ technology

Serial Ports	COM1, COM2, COM3, COM4 on board IRQ Selector by BIOS setup (Jumperless) DC 0 / 5 / 12 / 24V output on pin 9 by jumper selector
USB Ports	Four Powered USB 2.0 Ports (1 x 24V, 2 x 12V, 1 x 5V) Each output voltage protected using POLYFUSE® technology 2 x Easy access covered front USB ports
System Chip Set	North Bridge - Intel® 8656V South Bridge - Intel® ICH5
Floppy Disk	Optional external USB device
CD-ROM	Slim 24x CD-ROM / CD-RW / DVD*
Enhanced PCI IDE	On board PCI bus master IDE1/2 Ultra DMA 66/100/133 support
Serial ATA Port	2 x S-ATA Hard Disks
Expansion Slots	2 x PCI1
Cash Drawer Ports	2 x RJ12 Cash drawer ports with status sensor
Ethernet	Intel® 82861 Ethernet connection standard RJ45
Audio ports	AC97 CODEC on Board with Line In/Line Out / MIC In
Keyboard/Mouse	PS/2
Graphics Output	VGA CRT on Pin D-Sub connector
Parallel Port	25 Pin D-Sub connector
LCD Power Out	2 x 12v DC double
Dimensions	293mm(W) x 315mm(L) x 116mm(H)

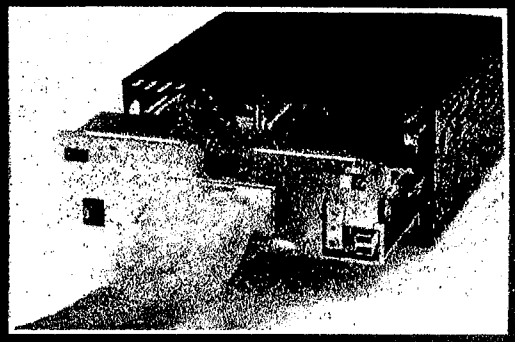
INDUSTRY'S ONLY 10 YEAR Warranty

* Not available on the RB1 - "Value" blade option

DigiPoS SYSTEMS

Email: info@digipos-systems.com www.retailblade.com

DigiPoS SYSTEMS



Retail Blade™ 1:

The Value Solution

The entry Retail Blade™ solution for specialty and lower volume retailers who want to ensure that there are numerous growth and scalability options. The retailer with fewer POS installations that require each and every one to have the highest availability and easiest serviceability.

Retailers can place the precise level of performance needed - right where it is needed - and if requirements change, the Retail Blade™ simply addresses the changing requirements.

Now that's simply smart!

RETAIL BLADE™

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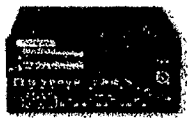
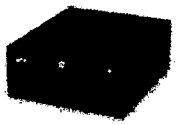




Retail Blade™ 1: Specifications

Entry level performance with all the benefits of Retail Blade™ technology

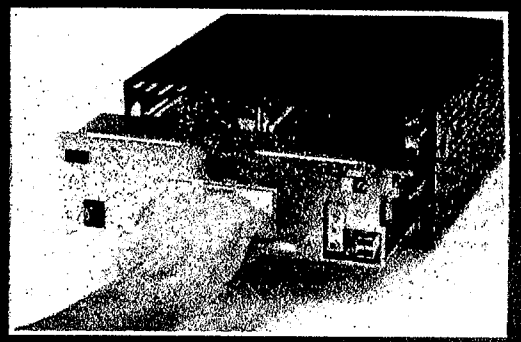
CPU	Intel® Celeron 2.0GHz, Socket 478
Main Memory	184 Pin DDRAM x 2 slots up to 2GB (266 MHz)
System Chip Set	North Bridge - Intel® 865GV South Bridge - Intel® ICH5
BIOS	Award BIOS With Enhanced ACPI 1.0 / PnP / APM / DMI / ESCD / PCI bus 2.1 / OnNow / DRAM ECC
Graphics	Intel® 865GV AGP up to 64MB using Intel® Extreme 2
Power On / Off Control	System side Remote Power On / ATX Trigger Control
Power Control	24V DC to ATX Power Inverter
Hard Disk	20GB EIDE 5400RPM

INDUSTRY'S STANDARD 1 YEAR warranty

DigiPoS SYSTEMS

Email: info@digipos-systems.com www.retailblade.com

DigiPoS SYSTEMS



Retail Blade™ 2:

The Mainstream Solution

The Retail Blade™ solution for multichannel and higher volume retailers with a need for high performance on the counter top. A future proofing approach to current needs and confidence that small simple changes are necessary to have your POS capability grow with a retailer's unique needs.

Retailers can place the precise level of performance needed - right where it is needed - and if requirements change, the Retail Blade™ simply addresses the changing requirements.

Now that's simply smart!

RETAIL BLADE™

RETAIL BLADE

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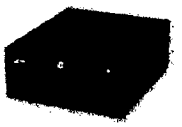
RETAIL BLADE™



Retail Blade™ 2: Specifications

Mainstream performance and functionality coupled with the advantages of Retail Blade™ technology

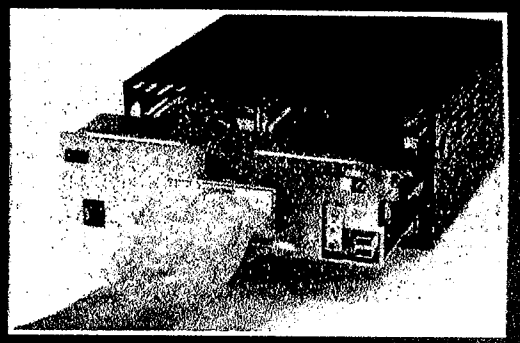
CPU	Intel® Celeron 2.5GHz, Socket 478
Main Memory	184 Pin DDRAM x 2 slots up to 2GB (333 MHz)
System Chip Set	North Bridge - Intel® 865GV South Bridge - Intel® ICH5
BIOS	Award BIOS With Enhanced ACPI 1.0 / PnP / APM / DMI / ESCD / PCI bus 2.1 / OnNow / DRAM ECC
Graphics	Intel® 865GV AGP up to 64MB using Intel® Extreme 2
Power On / Off Control	System side Remote Power On / ATX Trigger Control
Power Control	24v DC to ATX Power Inverter
Compact Flash	Bootable Compact Flash Card (Type I/II) on daughter board
Hard Disk	20GB EIDE 5400RPM
Diagnostics	On-board DigiPoS Diagnostics Software

INDUSTRY'S ONLY 3 YEAR Warranty

DigiPoS SYSTEMS

Email: info@digipos-systems.com www.retailblade.com

DigiPoS SYSTEMS



Retail Blade™ 3

The Peripheral Solution

The Retail Blade™ for sophisticated retailers who desire high performance to support complex multi channel highest volume environments. Growing retailers who appreciate the need for the most flexibility will appreciate the number of options for mixed implementations.

Retailers can place the precise level of performance needed - right where it is needed - and if requirements change, the Retail Blade™ simply addresses the changing requirements.

Now that's simply smart!

RETAIL BLADE™

RETAIL BLADE

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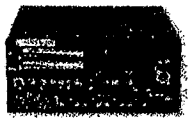

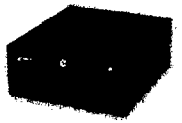

Retail Blade™ 3: Specifications

High End PoS client performance with the unique advantages of the Retail Blade™ Host

CPU	Intel® P4 2.4GHz, Socket 478
Main Memory	184 Pin DDRAM x 2 slots up to 2GB (400 MHz)
System Chip Set	North Bridge - Intel® 865GV South Bridge - Intel ® ICH5
BIOS	Award BIOS With Enhanced ACPI 1.0 / PnP / APM / DMI / ESCD / PCI bus 2.1 / OnNow / DRAM ECC
Graphics	Intel® 865GV AGP up to 64MB using Intel® Extreme 2
Power On / Off Control	System side Remote Power On / ATX Trigger Control
Power Control	24v DC to ATX Power Inverter
Compact Flash	Bootable Compact Flash Card (Type I/II) on daughter board
Hard Disk	40GB EIDE 7200RPM or 80GB S-ATA 7200RPM (option)
Diagnostics	On-board DigiPoS Diagnostics Software

INDUSTRY'S ONLY 3 YEAR

DigiPoS SYSTEMS

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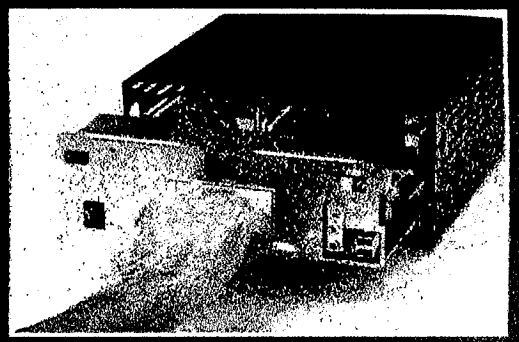


Retail Blade™ 4:

The Workstation

The highest performing Retail Blade™ with an open technology road map providing access to future enhancements when introduced to the industry. The complex retailer who is placing more of the store management applications out onto the counters will appreciate support for video, DVD/CD-ROM, and numerous other functions.

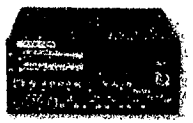
Retailers can place the precise level of performance needed - right where it is needed - and if requirements change, the Retail Blade™ simply addresses the changing requirements.

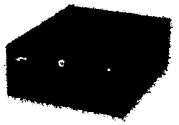
Now that's simply smart!

RETAIL BLADE™

RETAIL BLADE
RETAIL BLADE

RETAIL BLADE™





Retail Blade™ 4: Specifications

The highest performance available in a Retail specific PoS Workstation

CPU	Intel® P4 2.8GHz, Socket 478
Main Memory	184 Pin DDRAM x 2 slots up to 2GB (400 MHz)
System Chip Set	North Bridge - Intel® 865GV South Bridge - Intel® ICH5
BIOS	Award BIOS With Enhanced ACPI 1.0 / PnP / APM / DMI / ESCD / PCI bus 2.1 / OnNow / DRAM ECC
Graphics	Intel® 865GV AGP up to 64MB using Intel® Extreme 2
Power On / Off Control	System Side Remote Power On / ATX Power Control
Power Control	24V DC to ATX Power Inverter
Compact Flash	Bootable Compact Flash Card (Type II) on daughter board
Hard Disk	80GB S-ATA 7200RPM
Diagnostics	On-board DigiPoS Diagnostics Software

INDUSTRY'S ONLY 3 YEAR

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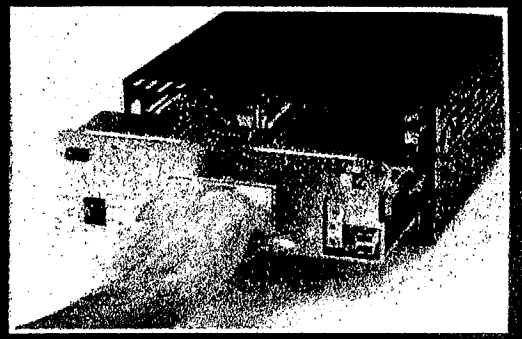
DigiPoS SYSTEMS



Retail Blade™ 5:

The Server

The powerful server solution in the unique Retail Blade™ format. The open platform concept of the Retail Blade allows for an easy upgrade path as new technologies are introduced. It also allows for an optional dual hard disk in order to store important data and backup precious information gathered from POS transactions.

Retailers can place the precise level of performance needed - right where it is needed - and if requirements change, the Retail Blade™ simply addresses the changing requirements.

Now that's simply smart!

RETAIL BLADE™

RETAIL BLADE

DigiPoS SYSTEMS

Retail Blade™ Thin Client

The Fourth Type

The Retail Blade™ Thin Client is yet another flexible choice for retailers who like the benefits of thin client/server computing architectures but appreciate the need for counter-top performance. An inexpensive option for POS system deployment with the advantages of in-store self maintenance and upgrade-ability. Retail Blade™ can be either THIN or THICK..

Retailers can place the precise level of performance needed - right where it is needed - and if requirements change, the Retail Blade™ simply addresses the changing requirements.

Now that's simply smart!

RETAIL BLADE™

RETAIL BLADE

RETAIL BLADE™

Retail Blade™ Thin Client: Specifications

Advanced connectivity and upgrade-ability, low total cost output

CPU	1 GHz GX Processor
Main Memory	512MB
System Chip Set	North Bridge - Intel® 865GV South Bridge - Intel ® ICH5
BIOS	Award BIOS With Enhanced ACPI 1.0 / PnP / APM 1.2 / DMI / ESCD / PCI bus 2.2 / QuietBIOS / DRAM ECC
Graphics	Intel® 865GV AGP up to 64MB using Intel® Extreme 2
Power On / Off Control	System side Remote Power On / ATX Trigger Control
Power Control	24V DC to ATX Power Inverter
Compact Flash	Bootable Compact Flash Card (Type I/II) on daughter board
Hard Disk	N/A

INDUSTRY'S ONLY 3 YEAR

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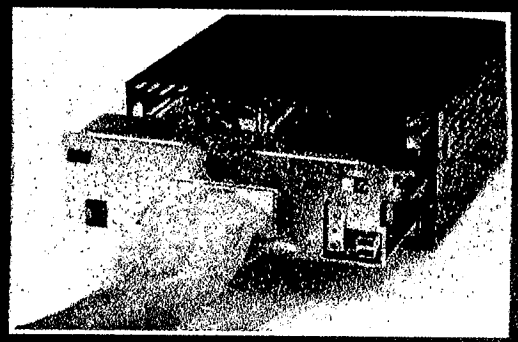
DigiPoS SYSTEMS



Retail Blade™ iBox

ADMX Migration Solution

The iBox Retail Blade™ is designed for IBM installed customers desirous of choices, options and a migration strategy to more flexible high performance POS. The Retail Blade™ Host provides a foundation to facilitate the move to open Windows and/or Linux environments that deliver better price performance. Integrations are simpler. Deployments are simpler. Maintenance is simpler. Retail Blade™ is simpler.

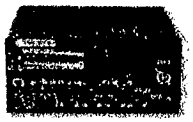
Retailers can place the precise level of performance needed - right where it is needed - and if requirements change, the Retail Blade™ simply addresses the changing requirements.

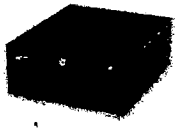
Now that's simply smart!

RETAIL BLADE™

RETAIL BLADE

RETAIL BLADE™





Retail Blade™ iBox: Specifications

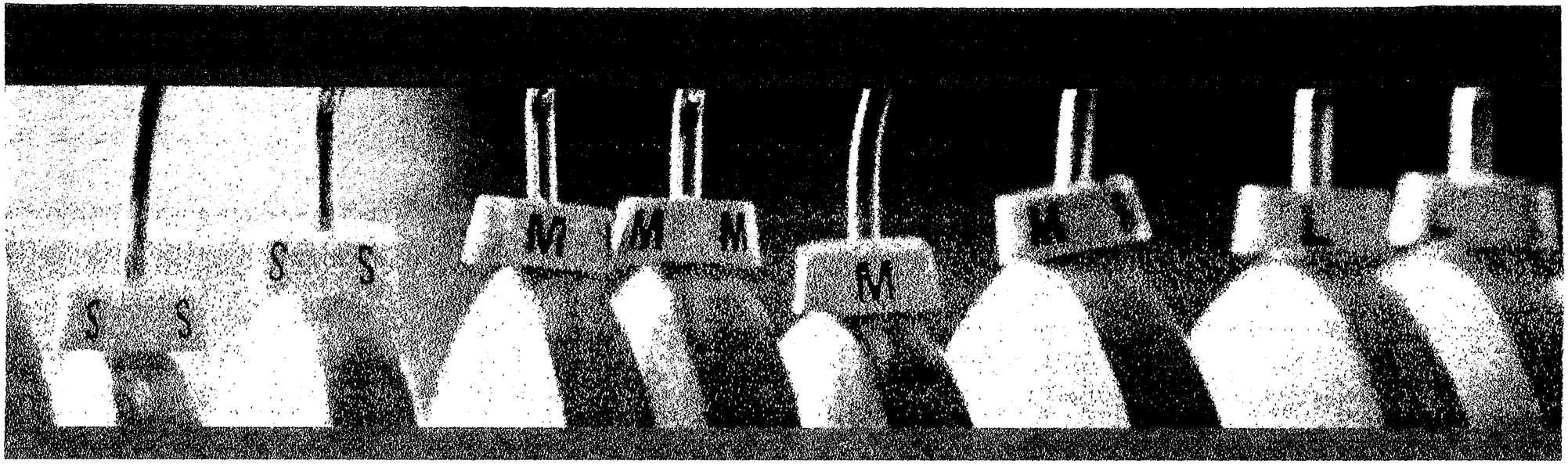
The ability to update legacy POS systems at a fraction of the cost of full replacement

CPU	Intel® Celeron 2.0GHz, Socket 478
Main Memory	184 Pin DDRAM x 2 slots up to 2G (333 MHz)
System Chip Set	North Bridge - Intel® 865GV South Bridge - Intel ® ICH5
BIOS	Award BIOS With Enhanced ACPI 1.0 / PnP / APM / DMI / ESCD / PCI bus 2.1 / QuiNow / DRAM ECC
Graphics	Intel® 865GV AGP up to 64MB using Intel® Extreme 2
Power On / Off Control	System side Remote Power On / ATX Power Control
Power Control	24v DC to ATX Power Inverter
Compact Flash	Bootable Compact Flash Card (Type I/II) on daughter board
Hard Disk	40GB EIDE 7200RPM or 80GB S-ATA 7200RPM (optional)
Diagnostics	On-board DigiPoS Diagnostics Software

DigiPoS SYSTEMS

Email: info@digipos-systems.com www.retailblade.com

INDUSTRY'S ONLY 3 YEAR WARRANTY

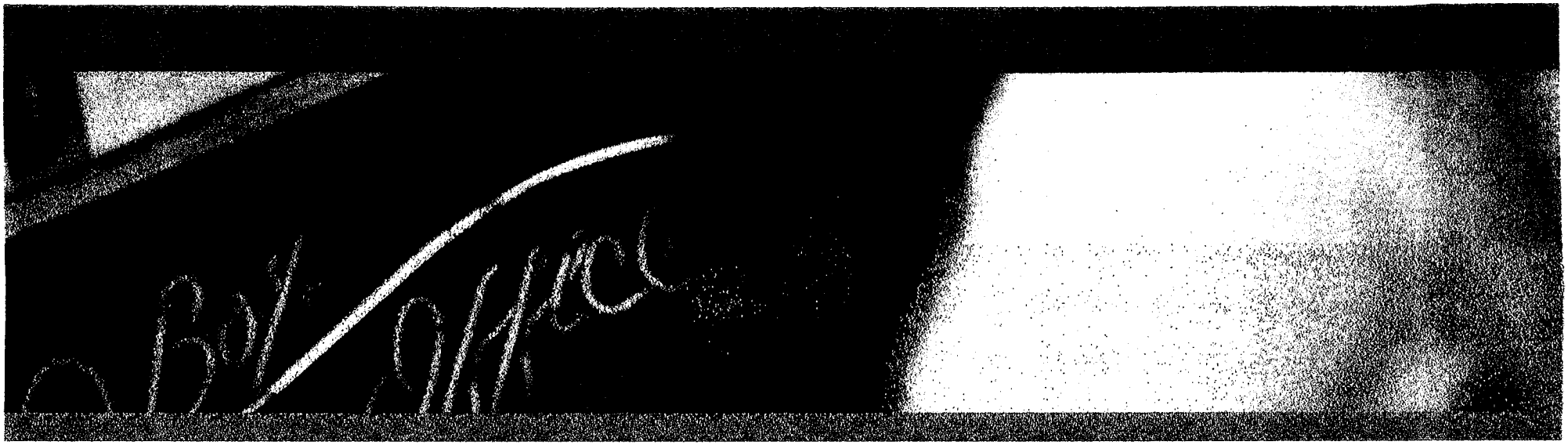


DigiPoS Systems Group

Your unique needs are our product requirements. At DigiPoS Systems, our research and development is driven by what our customers tell us they want. Just like you, we recognize if we stop giving our customers what they want, they stop being our customers. Rely on the only global POS systems provider who exclusively serves the retail market. We don't do anything else. We're simply the best at what we do.

DigiPoS Systems, part of the International Retail Solutions Group, is a retail POS designer and manufacturer of innovative solutions for the retail industry. With over 100,000 systems installed in over 16 countries - in just over 10 years - the global markets are voting with their wallets and DigiPoS Systems is a name you simply won't soon forget.

DigiPoS SYSTEMS



Our Customers

Adams	Celtic Football Club	Harvey Nichols	Mothercare	Schuh
Aer Rianta	Circuit City	Hobbs	Oasis	Spar
Alddiss	Claires	Jessops	OK Foods	SSG
Awear	Defi Mode	Jigsaw	Paul Smith	Ted Baker
B Wise	DKNY/Fossils/Skechers	K s Merchandise	Peacocks	TGI Fridays
Beaverbrooks	ecco shoes	Klix	Pets at Home	The Co-operative Group
Benny s	English Heritage	Kurt Geiger	Pharmatechnik	Virgin Mobile
Bewise	Escada	Liberty	Phase 8	Vision Express
Brown Thomas	EstØe Lauder	Little Chef	Primark	Vodacom
Cache Cache	Expert	Londis	Rangers Football Club	Value Drug Mart
Canal Walk	Fat Face	Mackays	River Island	Warner Brothers
Caviar House	Fenwick	Madame Tussauds	Roches	WHSmith
CBS	Granada Retail	Majestic Wine	Russell & Bromley	Yates

RETAIL BLADE™

The Backplane (Connectivity)

Our Foundation

When the company was established in the early 90's, it was apparent that hardware was fast becoming the poor relation to the more exotic world of software development. The lack of focus on truly open Point of Sale products was leading to a 'me too' systems environment which created precious little added value for the Retail channel resellers. It was further apparent that most mainstream PoS manufacturing design was far too constrained, since it failed to exploit best practice synergies that were well established in the broader computing technology sector. This constraint led in turn to PoS designers adopting a closed system strategy that focused on methods to lock in retailers at the hardware level whilst simultaneously competing with independent vendors in the rapidly emerging software development businesses. My vision was then to develop a global business that was totally committed to providing open PoS systems that preserved the long-term value of retail technology for developers and Retailers alike.

Almost 10 years after setting these goals, the DigiPoS Systems Group now represents an exceptional testament to those beliefs. Today, we continue to see the enduring benefits enjoyed by retailers who are using and evolving our open technology DigiPoS platforms across a diverse range of demanding Retail systems environments. Features such as IP based diagnostics and PoS specific power management, ensure that our systems really are built to last and meet the criteria of 'Retail by design'.

I truly believe that this unprecedented success is a direct reflection of the customer driven demand for innovative solutions and superior service. Exceeding this demand for excellence has always been the goal of our dedicated and experienced international team and our growth has been founded on our ability to offer these benefits to retailers across the globe.

We are continuing to deliver our vision by ensuring that our company, products and services, continue to exceed market expectations. From the outset we have been, and will remain, technology experts operating solely in the store systems business. This strategy ensures that other market sector interests do not dilute our organizational IQ and knowledge base. Our determination to remain a Retail only focused group has, now distinguished DSG as one of the leading specialist suppliers in the PoS market worldwide.

Our future goal is to deliver the benefits of emerging technology such as RFID, Biometrics and Wireless PoS by continued investment in leading edge design. This coupled with the solid experience of our team of over 300 staff and more than 1500 specialist resellers, will ensure we continue to provide an environment of confidence and surety in our products and in our business. Our simple aim is to provide our partners with Retail systems that have a low cost of ownership, but without sacrificing quality or functionality.

If you are an existing client of our group, I thank you for your loyalty and support, if you are newly introduced to our business, I urge you to engage our specific country management team and challenge them to exceed your own expectations. You will find a wealth of local knowledge of your particular Retail sector and you can rely upon the fact that your business can call upon an international support team that is unrivalled in the Retail market today.

Graham Worsfold
Founder

Global Offices

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DigiPoS SYSTEMS GROUP

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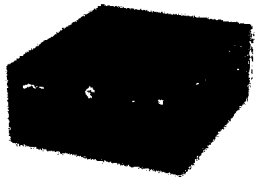
Print Close

RETAIL BLADE™ DigiPoS RETAIL BLADE

View a PDF Documnet on the DigiPoS Retail Blade™

DigiPoS Systems is proud to introduce you to the Retail Blade™ innovation.



The core of the DigiPoS Retail 293mm(W) x 315mm(L) x 116mm (H) innovation is the sophisticated simplicity of the design and the introduction of the unique Retail Blade™ Host.

Leveraging the principles of blade technology that deliver lower operating and management costs, real time monitoring, efficient use of common resources and ease of maintenance, the DigiPoS Retail Blade™ extends the useful life of your POS estate. DigiPoS even warranties the Retail Blade Host™ for TEN YEARS!.

The Retail Blade™ system consists of the Retail Blade Host™ which houses all the POS connectivity and power to the system and peripherals, as well as the Retail Blades™ which slide in and out of the host for easy upgrades.

The Retail Blade family™ is essentially a set of Blades that consist of a wide variety of processing options, storage capabilities, flash memory and power options, all which are accessible to future upgrades as your needs change over time.

Host Specifications - Summary

Serial Ports	COM1, COM2, COM3, COM4 on board IRQ Selector by BIOS setup (Jumper-less) DC 0 / 5 / 12 / 24v output on pin 9 by jumper selector
USB Ports	Four Powered Retail USB 2.0 Ports (1 x 24v, 2 x 12v, 1 x 5v) Each output voltage protected using POLYFUSE® technology 2 x Easy access covered front USB ports
CD-ROM	Slim 24x CD-ROM / CD RW / DVD
Enhanced PCI IDE	On board PCI bus master IDE1/2 Ultra DMA 66/100/133 support
Serial ATA Ports	Up to 2 x S-ATA Hard Disks
Expansion Slots	2 x PCI1
Cash Drawer Ports	2 x RJ12 Cash drawer ports with status sensor
Ethernet	Intel® 82861 Ethernet connection standard RJ45
Audio ports	AC97 CODEC on board with Line In/ Line Out / MIC In
Keyboard/Mouse	PS/2

Graphics Output	VGA 15 Pin D-Sub connector
Parallel Port	25 Pin D-Sub connector
LCD Power Out	2 x 12v DC dipole
Dimensions	293mm(W) x 315mm(L) x 116mm(H)
Warranty	10 Years

Retail Blade™ Specifications - Summary

Retail Blade™ 1

Processor:
Intel Celeron 2GHz

RAM:
128Mb (up to 2Gb)

Hard Drive:
40Gb IDE

Compact Flash Card
None

Video
96Mb AGP

On Board Web Based Diagnostics
None

Warranty:
1 year Limited Warranty

Retail Blade™ 2

Processor:
Intel Celeron 2.4GHz

RAM:
128Mb (up to 2Gb)

Hard Drive:
40Gb IDE / 80Gb S-ATA

Compact Flash Card
64Mb

Video
96Mb AGP

On Board Diagnostics
DigiPoS Remote Diagnostc Utility

Warranty:
3 years

Retail Blade™ 3

Processor:
Intel P4 2.4GHz

RAM:
256Mb (up to 2Gb)

Hard Drive:
40Gb IDE / 80Gb S-ATA

Compact Flash Card
64Mb (up to 1Gb)

Video
96Mb AGP

On Board Diagnostics
DigiPoS Remote Diagnostc Utility

Warranty:
3 years

Retail Blade™ 4

Processor:
Intel P4 3.0GHz

RAM:
256Mb (up to 2Gb)

Hard Drive:
40Gb IDE / 80Gb S-ATA

Compact Flash Card
64Mb (up to 1Gb)

Video
96Mb AGP

On Board Diagnostics
DigiPoS Remote Diagnostc Utility

Warranty:
3 years

Retail Blade™ Thin Client

Processor:
Gx 1.0GHz

RAM:
512Mb (up to 2Gb)

Hard Drive:
N / A

Compact Flash Card
64Mb (up to 1Gb)

Video
96Mb AGP

On Board Diagnostics
None

Warranty:
3 years

Retail Blade™ iBox

Processor:
Intel Celeron 2.4GHz

RAM:
256Mb (up to 2Gb)

Hard Drive:
40Gb IDE / 80Gb S-ATA

Compact Flash Card
256Mb (up to 1Gb)

Video
96Mb AGP

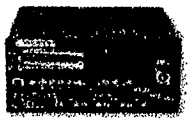
On Board Diagnostics
DigiPoS Remote Diagnostc Utility

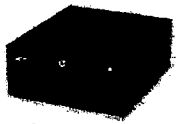
Warranty:
3 years

Additional to DigiPoS Systems extensive product range, please take the opportunity to look at the wide variety of Value Added Services we can offer in the Services section

Back to the Top

RETAIL BLADE™





Retail Blade™ 5: Specifications

Advanced server functionality on a common 'retail Blade' platform

CPU	Intel® P4 2.8GHz, Socket 478
Main Memory	184 Pin DDRAM x 2 slots up to 2G (400 MHz)
System Chip Set	North Bridge - Intel® 865GV South Bridge - Intel® ICH5
BIOS	Award BIOS With Enhanced ACPI 1.0 / PnP / APM / DMI / ESCD / PCI bus 2.1 / OnNow / DRAM ECC
Graphics	Intel® 865GV AGP up to 64MB using Intel® Extreme 2
Power On / Off Control	System side Remote Power On / ATX Trigger Control
Power Control	24V DC to ATX Power Inverter
Compact Flash	Bootable Compact Flash Card (Type I/II) on daughter board
Hard Disk	Two 120GB S-ATA 7200 RPM with on board RAID mirror
Diagnostics	On-board DigiPoS Diagnostics Software

INDUSTRY'S ONLY 3 YEAR

DigiPoS SYSTEMS

Email: info@digipos-systems.com www.retailblade.com

About us

History

Products

Distribution

Management Team

Locations

Careers

Investor Relations

Environment

History

Digi International® was founded in 1985 as DigiBoard. The Company went public as Digi International in 1989 and is traded on the NASDAQ National Market under the symbol DGII. Digi® employs more than 350 people worldwide. We are headquartered in Minnetonka, Minnesota, a suburb of Minneapolis, with offices worldwide in the U.S., Europe and Asia. Our device networking solutions are marketed under the Digi, Rabbit Semiconductor® and MaxStream™ brands.

The Makers of the Original DigiBoard

Related Linl
•Corporate ov
•Contact us

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EXHIBIT
McBride
Ex. 33
10/17/06 IB

Products

Digi International, the leader in device networking for business, develops reliable products and technologies to connect and securely manage local or remote electronic devices over the network or via the web. With over 20 million ports shipped worldwide since 1985, Digi offers the highest levels of performance, flexibility and quality.

Marketed under the Digi®, Rabbit Semiconductor® and MaxStream™ brands, our enterprise solutions include:

- Embedded solutions – wired/wireless modules, microprocessors, software and services, development kits
- External serial-to-Ethernet device servers and terminal servers
- Rabbit single-board computers
- Secure, intelligent and easy-to-use console servers
- Zero-clients
- USB connectivity
- Wireless and cellular solutions
- ZigBee™ and RF radio modules (stand-alone and OEM)
- Multiport serial cards

We provide critical network connectivity to devices that you encounter in your everyday life. Whether you realize it or not, your daily routine is made easier by Digi technologies. When you use the self checkout system in your local grocery store. When you check into a hotel. When you drink a bottled beverage. When you drive through a traffic light. When you check your baggage at the airport. When you search the web. When you place your order at a fast food restaurant. When you swipe your ID badge to enter an office building. These are just some of the ways Digi makes device networking – and your life – easier.

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History

Products

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Careers

Investor Relations

Environment

Distribution

Digi sells its products through a global network of distributors, systems integrators, value added resellers (VARs) and original equipment manufacturers (OEMs). Internationally, Digi sells and markets it products through 180 distributors in more than 65 countries.

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Upcoming Events

2006 GTEC Exhibition
October 24-25, 2006
Ottawa Congress Center
Ottawa, ON
Canada

WEFTEC 2006
October 22-25, 2006
Dallas Convention Center
Dallas, TX
Booth 6965 - Hall F

Rockwell Automation Fair 2006
October 25-26, 2006
Convention Center
Baltimore, MD
Booth 915

FS/TEC
November 5-8 2006
Long Beach Convention Center
Long Beach, CA
Booth 1152

Remote Monitoring & Networking 2006
November 9-10, 2006
The Westin Long Beach
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Booth 23

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Digi

Connectware™

Corporate Overview

Digi International, the leader in Connectware, makes device networking easy by developing products and technologies that are cost-effective and easy to use.

www.digi.com

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Making DEVICE NETWORKING *easy*™

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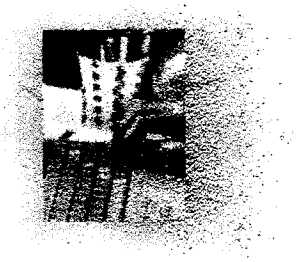


Digi international, headquartered in Minnetonka, Minnesota, with locations worldwide, was founded in 1985 and currently employs more than 350 people. With more than 18 years experience and over 20 million ports shipped worldwide, Digi is a recognized brand with a reputation for reliable, innovative, quality products, and strong technical support.

Digi International, the leader in Connectware, makes device networking easy by developing products and technologies that are cost-effective and easy to use.

We offer an extensive range of products including device servers, secure console management servers, terminal servers, asynchronous serial cards, Universal Serial Bus (USB) solutions and now embeddable networking, core processor and turnkey technology solutions to enable a virtually unlimited number of devices or users to be connected locally or remotely to LANs, multi-user systems and the internet. Designed for a wide range of businesses including retail, imaging, industrial, hospitality, finance and medical sectors, our product lines allow customers to automatically collect, track, measure, monitor and control the critical data they need to gain a competitive advantage and build their business.

Inside Out NETWORKS
A Digi International Company

www.ionetworks.com

Inside Out Networks Inc., a Digi International company is the leader in enterprise USB connectivity, offering simple to install, high-performance solutions to attach peripheral devices to PCs, thin clients and servers via USB and wireless technology.

NetSilicon
A Digi International Company

www.netsilicon.com

NetSilicon, a Digi International company, is a leading provider of network-attached processors and device connectivity software. NetSilicon integrates the high performance NET+ARM 32-bit microprocessor with NetSilicon's NET+Works advance networking software, including development tools, real-time operating system and connectivity software to accelerate customer development of intelligent, networked devices.

Vertical Markets

Connect Your World

The world is in the early stages of an extraordinary but quiet technology revolution. The advances of personal computers and the Internet have laid the groundwork for the rapidly emerging era of networked devices. Digi's mission is to make device networking easy.

The promise of device networking is this: the closer you can place decision-making to the source of information, the faster you can make good decisions. That translates directly into making your business more productive, more competitive and more profitable. Digi offers solutions that allow businesses to improve efficiency, and save valuable time and money.

Industrial Automation

Productivity improvements, inventory management and quality control are all common challenges found in virtually every manufacturing facility today. From automotive to warehouse environments, the need to attach essential devices (new or legacy) such as PLCs, CNC/DNC equipment, process and quality control equipment, pump controllers, bar-code readers/scanners, operator displays, scales and weighing stations, printers, machine vision systems, and many other types of manufacturing equipment is common. Digi offers solutions for all these challenges.

Retail/Point-of-Sale

Whether it's a single store or a large retail chain, Digi offers solutions that can help companies focus on running their business. Digi solutions solve the challenges associated with enabling POS devices to effectively share information across the network. Digi solutions can be used to easily connect network devices like card swipe readers, bar-code scanners, scales, receipt printers and cash register display poles.

Building Automation/Security

Automating and controlling a building's Heating, Ventilation and Air Conditioning (HVAC) and security systems is easy with Digi. Digi products solve the problem of stand-alone control systems that are unable to talk to each other and share important data. Digi solutions can be used to centrally manage equipment and improve the comfort, safety and productivity of building occupants.

Medical/Healthcare

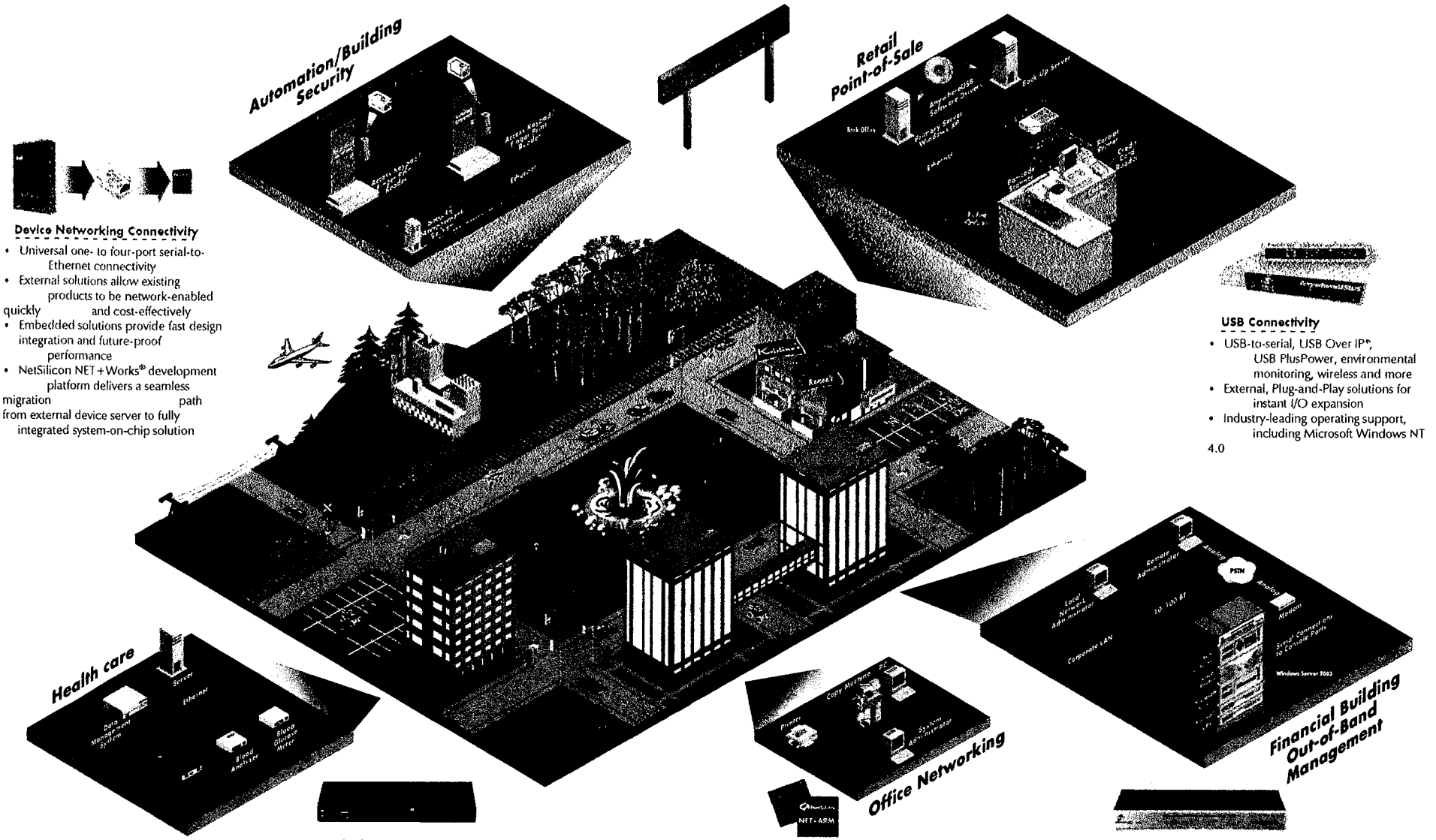
Today hospitals, clinics and laboratories are facing rapidly growing needs to receive, monitor and access patient information quickly, easily, and accurately whether at the bedside, nurse's station, or anywhere in the facility. Digi solutions network-enable medical equipment and devices using the hospital's existing Ethernet network to improve patient care and reduce operating costs.

Out-of-Band Management

When a network collapses, productivity and profits also fall, generating a serious impact on a company's bottom line. Digi out-of-band management solutions enable immediate response in critical situations, provide connectivity when the primary network is down and eliminate costly travel to remote sites. Out-of-band management is a powerful and efficient enhancement to your network management system.

Office Networking

During the course of the typical business day billions of images are created, moved and then output in some fashion over networks and the Internet, in a process called Image Communication. This demanding process has driven the need for a new generation of network attached devices to manage the ever increasing load of network media. Digi is providing the core solutions for connecting, enabling and managing this process for office, industrial and POS printers, as well as MFPs, network cameras, network LCDs, information displays and network projectors.



Device Networking Connectivity

- Universal one- to four-port serial-to-Ethernet connectivity
- External solutions allow existing products to be network-enabled quickly and cost-effectively
- Embedded solutions provide fast design integration and future-proof performance
- NetSilicon NET+Works® development platform delivers a seamless migration path from external device server to fully integrated system-on-chip solution

USB Connectivity

- USB-to-serial, USB Over IP®, USB PlusPower, environmental monitoring, wireless and more
- External, Plug-and-Play solutions for instant I/O expansion
- Industry-leading operating support, including Microsoft Windows NT 4.0

Terminal Server Connectivity

- One- to 16-port serial-to-Ethernet connectivity
- Patented RealPort® technology creates a secure encrypted virtual connection for COM or TTY port control

NET+ARM Processor

- Family of network-attached processors
- Supported with fully integrated NET+Works development tools and applications software
- Provides full networking and applications support for all your device networking needs

Secure Console Servers

- Provide secure, easy to use out-of-band management
- Manage data center equipment when primary path is not available
- Save time and money by fixing problems remotely

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Industrial Automation – Digi's IA-Specific Device Networking ...
Digi's IA-specific device networking solutions address the needs of the IA market, including control, **automation**, and monitoring IA equipment.
www.**digi**.com/applications/**industrialautomation**/ - 26k - Cached - Similar pages

Digi International Support Forum: **Industrial Automation**
Category: **Industrial Automation** Sub-Categories: 0, Forums: 3 Last Post: Sep 29, 2006 11:38 AM. Models **Digi** One IA, **Digi** One IA Realport, **Digi** One IAP, ...
www.**digi**.com/support/forum/category.jspa?categoryID=48 - 33k - Cached - Similar pages
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Router connects remote **industrial automation** devices., **Digi** ...
Digi Extends Wireless WAN Router Family with **Industrial Automation** Focused Product, **Digi** International.
news.thomasnet.com/fullstory/483563/nct - 59k - Cached - Similar pages

Industrial automation added to WAN router: News from **Digi** ...
A wireless WAN cellular router family has been extended with an **industrial automation** focused product so that it easily connects with remote **industrial** ...
www.manufacturingtalk.com/news/dgi/dgi112.html - 11k - Cached - Similar pages

ECE - product news
Digi: suite of building and **industrial automation** protocols. **Digi** International announced the availability of FieldServer Technologies' ProtoCessor protocol ...
www.embedded-control-europe.com/prodnews?cat=1&pid=8382 - 17k - Cached - Similar pages

>TI Digi International introduces **industrial automation** product ...
'>TI **Digi** International introduces **industrial automation** product designed to connect new and legacy network equipment; Introduction of **Digi** One IA RealPort ...
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Digi Connect WAN IA Wireless Router Targets **Industrial Automation**
Digi International (NASDAQ: DGII) today announced the introduction of the **Digi** Connect WAN IA, a new wireless WAN cellular router ...
edageek.com/2006/04/19/**digi**-connect-wan-ia-wireless-router-targets-**industrial-automation**/ - 27k - Cached - Similar pages

Managing **Automation** :: **Digi** Extends Wireless WAN Router Family ...
Digi Extends Wireless WAN Router Family with **Industrial Automation** Focused Product. Posted on 2006-04-28 07:07:31.0 Sign Up to receive Daily News Alerts in ...
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Low-latency device server for **Industrial Automation - Digi** One IA ...
Low-latency device server for **Industrial Automation** - **Digi** One IA / SP IA - Amplicon Liveline supply a wide range of **Industrial** Computer Equipment ...
www.amplicon.co.uk/dr-prod3.cfm/subsecid/10011/secid/4/groupId/11766.htm - 32k -

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Tech Pacific - **Industrial automation** serial device connector
DIGI International has introduced the new **Digi** One IA RealPort designed to network enable virtually any serial device in the **industrial automation ...**
www.ferret.com.au/articles/ec/0c00dcec.asp - 43k - Cached - Similar pages

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Lynn's **Industrial Automation** Protocol Tips
Digi International 11001 Bren Road East Minnetonka, MN 55343 (USA) 1-800-344-4273. **Digi's Industrial Automation** Home Page. lynn's email at **digi** if related ...
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Digi Joins Rockwell **Automation's** Best-in-Industry Supplier Program
The **Digi** Connect WAN family of **industrial** cellular routers has been recognized as best-in-class by Rockwell **Automation**. These products include wireless ...
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Digi International Launches Wavespeed/S Wireless Serial Adapter ...
Wavespeed/S customer, Chip Smith, president, Advantage **Industrial Automation** commented: "**Digi**'s new Wavespeed/S is an outstanding device that increases our ...
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Kepware Technologies and **Digi** International Partner To Develop ...
"With this partnership, **Digi** and Kepware are creating a new, cutting edge standard of technology for the **industrial automation** market," said Joel Young, ...
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File Format: PDF/Adobe Acrobat - View as HTML
for the **Industrial Automation** Market. Model: 70001777. The **Digi** One IA RealPort device server was created to meet the specific ...
www.bb-europe.com/bb-euro/literature/70001777.pdf - Similar pages

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Tue, 18 Jul 2006 08:00:00 UT **Digi** International link4 **Industrial automation** added to WAN router A wireless WAN cellular router family has been extended with ...
www.manufacturingtalk.com/news/dgi/dgi000_rss.xml - 6k - Cached - Similar pages

Specialty Publishing Company
Wireless **Industrial Automation**. The bar continues to be raised among the ... "The **Digi** Connect WAN IA uses wireless GSM or CDMA networks to create a TCP/IP ...
www.specialtypub.com/article.asp?ARTICLE_ID=3169&SECTION=2 - 29k - Cached - Similar pages

Digi Enables OEMs to Easily Network Wide Variety of **Automation** Devices
Digi International (NASDAQ: DGII) announced the availability of FieldServer Technologies' ProtoCessor Protocol Suite of building and **industrial automation** ...
www.embeddedstar.com/press/content/2005/10/embedded19079.html - 17k -

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ManagingAutomation.com :: Webcast – "The Wireless WAN Backup Plan ...
He joined **Digi** International in 1992 and is responsible for pre-sales tech support for **Digi** International's **industrial automation** and cellular product lines ...
www.managing**automation**.com/maonline/research/webcast/view/**Digi**_International_The_Wireless_WAN_Backup_Plan... - 56k -
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Digi Retail Connections

Digi International Retail/POS Newsletter

Volume 1, Issue 2, Spring 2004

In this Issue...

Connecting EIA-232 peripheral devices to a POS...

Digi Edgeport/4: The hassle-free solution...

Effectively managing inventory and checkout systems...

PortServer TS 16: Secure network serial connectivity...

Find out how you can visit Digi at Retail Systems 2004...

Welcome to Digi Retail Connections!

It is our pleasure to present you with the first edition of the Digi Retail Connections newsletter.

Digi International has been providing retail device connectivity for 15+ years. If you need to "connect stuff" in a retail/point-of-sale (POS) environment, chances are Digi has done it. This newsletter highlights existing solutions and new approaches to real-world problems as well as the latest in peripheral device connectivity for retail/POS.

The design of this quarterly newsletter allows for quick and easy access to application and product spotlight articles along with a point-of-interest index for the retail/POS industry. Simply review the headlines and brief descriptions then click on the articles you wish to read.

Application Profile

Convenience Store

Connecting EIA-232 peripheral devices to a POS

While there are numerous nationwide convenience stores throughout the United States, small, family owned stores also flourish. These smaller stores often cannot justify the expense of sophisticated, pre-packaged retail systems, so finding lower cost alternatives is a common concern.

A small convenience store chain needed to replace its outdated POS systems while protecting its investment in application software and peripheral devices... [FULL STORY]

Entertainment Retailer

Effectively managing inventory and checkout systems

In the fast moving retail business for movies, music, video games and books, store owners must have not only the most up-to-date product selection on hand, but also a low maintenance, reliable IT infrastructure to manage inventory and run an efficient checkout system. With bookstores and video rental stores on practically every corner, the need to maintain accurate inventory and operate efficient checkout systems is essential to ensure customer satisfaction and build client loyalty.

A major entertainment retailer with 144 locations nationwide needed an IT solution to upgrade its checkout and inventory systems. Reliability and minimum system downtime were key requirements in the system upgrade... [FULL STORY]

Product Spotlight

Edgeport 4 - The hassle free solution

Edgeport USB-to-serial converters offer an easy Plug-and-Play solution for instant COM port expansion. An out-of-the-box (external) alternative to PCI cards, the Edgeport connects to the USB port of a PC, thin client, notebook or server, eliminating the need to open the chassis, reconfigure and reboot... [FULL STORY]

Datasheet
Edgeport

PortServer TS 16 - Secure network serial connectivity

The PortServer TS Family of terminal servers delivers simple, reliable, and cost effective network serial connectivity for a wide range of applications. The PortServer TS provides hardware independent solutions that allow access to network server applications supporting TCP/IP... [FULL STORY]

Datasheet
PortServer TS 16

Digi Product Catalog
2004
USB Product Catalog
2004

Point-of-Interest

Retail Events
Visit Digi at Retail Systems 2004 - May 17-20 2004, Chicago, IL Booth #1925 - Find out how you can utilize Connectware for your retail/POS business. www.retailsystems.com

Retail Literature
Download a copy of the Retail/POS Application Guide

Learn More

Contact
To talk with a Digi International Retail representative about our solutions and product information, please call **Nicole Jentzsch** at **877-912-3444 ext. 3458** or Contact Us on-line.

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Who is Digi International?
Download our Corporate Overview and find out how we are "Making Device Networking Easy".

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Digi Retail Connections

Digi International Retail/POS Newsletter

Connectware™

Volume 1, Issue 2, Summer 2004

In this issue...

Creating a cost-effective, elegant retail solution with as few power cords and cables as possible...

USB Plus Series: Save space and simplify retail system architecture...

Point-of-Interest: www.usbpluspower.org

What a success!

The premier issue of Digi Retail Connections was a success and we would like to thank those of you who sent us your comments and requests for future issues. With your feedback, we can continue to send the information you need to make key technology decisions for your company. We also want to keep you up to date on the latest trends in the retail/POS space. That's a big reason we exhibited at Retail Systems 2004 in May. We met many of you there, and had an opportunity to spread the word about USB PlusPower, or powered USB technology.

"Many of the visitors we met at the show were not aware of the benefits powered USB technology," commented Jim Emery, USB Product Manager, Digi International. "Retail Systems was a great forum to educate retailers about the potential cost-savings that can be realized by combining a basic PC with our USB Plus Series to create an affordable, powered USB-compatible POS system."

If you haven't checked out the new Retail/POS section of our web site, we hope you will today. We look forward to hearing your ideas and requests for the next issue of Digi Retail Connections!

Application Profile

Department Store Chain

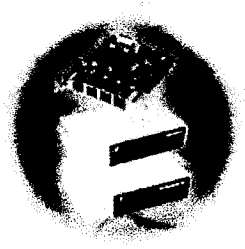
Creating a cost-effective, elegant retail solution with as few power cords and cables as possible

A department store was preparing to upgrade its POS stations in its stores nationwide. Each system required a variety of POS peripheral devices, some of which were USB-attached and required external power supply bricks. This created a tangled mess of wires, required extra room for the bricks, and also made it difficult to troubleshoot and perform routine maintenance. The retailer had two basic requirements for the upgrade: eliminate external power supply bricks for USB devices and keep upgrade costs to a minimum... [FULL STORY]

Product Spotlight

USB Plus Series

Save space and simplify retail system architecture



USB peripheral devices such as bar-code scanners, receipt printers and signature capture devices are common elements of traditional retail/POS systems. Many of these devices require external power supply bricks, which can create a tangled mess of cables and power strips. This takes up valuable space and creates more potential points of failure. USB PlusPower, or powered USB technology, was developed to eliminate external power supply bricks for USB devices... [FULL STORY]

Data sheet

USB Plus Series

Powered USB Application Note

2004 **Digi Product Catalog**

2004 **USB Product Guide**

Point-of-Interest

www.usbpluspower.org

Visit the usbpluspower.org site to learn more about the USB PlusPower technology, commonly called powered USB. The site includes links to vendors and products that support USB PlusPower, press coverage, and other information revolving around this exciting new technology.

Access the archives

Download a PDF copy of past issues of the Digi Retail/POS Connections newsletter.

Learn More

Contact

To talk with a Digi International retail representative about our retail/POS solutions, please call **North America** - Nicole Jentzsch at 877-912-3444 ext. 3458 **Europe** - Michael Pohl +49 231 9747206 or Contact Us on-line.

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What would you like to see in the next Digi Retail/POS Connections newsletter? Submit or contribute success stories, technical support questions or product suggestions to Digi at RetailNews@digi.com

Who is Digi International?

Download our Corporate Overview and find out how we are "Making Device Networking Easy™".

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Making DEVICE NETWORKING easy

EXHIBIT
McBride
Ex. 37
10/17/06 KS

Digi International AnywhereUSB and Watchport Series Chosen as Finalists of Comdex"

Finalists Recognized at Comdex Fall 2002 in Las Vegas

MINNETONKA, MN, November 24, 2002 — Digi International (NASDAQ: DGII) today announced that two pi its subsidiary Inside Out Networks™, Inc., the leader in enterprise USB connectivity, were finalists for the "Bes Awards. AnywhereUSB™ the first remote networking solution to utilize USB-Over-IP and the Watchport™ Serie environmental monitoring appliances, were chosen as finalists in the enterprise hardware category as a 24/7 a monitoring solution. The finalists were selected by editors at *PC Magazine*, the official sponsor of this year's "Be Comdex" Awards, which recognized and honored technical innovation and creativity in nine categories.

"We are pleased that two of our products have been selected as finalists for the prestigious 'Best of Comdex' A Joseph Dunsmore, president and CEO of Digi International. "We were hoping for a good response to the launch AnywhereUSB and Watchport Series products, but this truly recognizes the advancements that Digi has made i innovate products."

The Watchport Series of plug-and-play USB devices offers a simple solution for 24/7 asset monitoring with the la carte product selection for unique application requirements. Vision components for surveillance, including the grade USB Camera, analog to digital Video Encoder, and Motion Detection Software, may be paired with sensor proximity, motion, water, temperature and humidity to create a made-to-order asset monitoring system to pre failures and extend the life of equipment. Watchport Manager sends phone, email or beeper alerts and enables integration without additional software development. Watchport solutions are a perfect fit with the AnywhereUS Concentrator, which utilizes a wired or wireless Ethernet LAN to break the traditional five-meter USB cable dist Now, USB devices like printers or the Watchport camera and sensors may be connected and monitored via an I from anywhere on the LAN – without a locally attached host PC. Both AnywhereUSB and the Watchport Series for mission-critical Windows® applications like surveillance, indoor/outdoor kiosks and branch server room ma

"We were very excited about the great response we had for both products at Comdex this year," said Stephen chief operating officer of Inside Out Networks. "Being a 'Best of Comdex' finalist for this solution was recognitic dedication and hard work of the Digi Team in developing these products."

The Watchport/V USB Camera, offering exceptional low light sensitivity for surveillance, is available now throug global distribution channel. Watchport/P, Watchport/M, Watchport/W, Watchport/T, Watchport/H, Watchport/V Watchport Motion Detection Software and AnywhereUSB are scheduled to ship by the end of calendar year 200

About Digi International
Digi International, based in Minneapolis, the leader in Connectware, makes device networking easy by manufac products and technologies that are cost effective and easy to use. Digi markets its products through a global n distributors and resellers, systems integrators and original equipment manufacturers (OEMs).

About Inside Out Networks
Inside Out Networks, a Digi International company, is the leader in enterprise USB connectivity, with an install over 100,000 units and 2100 customers worldwide. The company provides simple-to-install, high-performance, wireless connectivity solutions for attaching serial, parallel, and modem devices to PCs utilizing Universal Serie technology. For more information visit www.ionetworks.com, call (512) 306-0600.

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Matt Serra
Mulberry Marketing Communications

EXHIBIT
McBride
Ex. 38
10/17/06 KR

312-836-3716
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For more information, visit Digi's Web site at www.digi.com, or call 877-912-3444 (U.S.) or 952-912-3444 (Int

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PSCRIPT Page Separator

Digi Showcases USB PlusPower Technology from Leading Point-of-Sale Sys Vendors Worldwide at Comdex Las Vegas 2003

USB Plus Series and Powered USB on Display at Digi Booth 8748 in the USB Pavilion

MINNETONKA, Minn. (Nov. 17, 2003) - Digi International (NASDAQ: DGII), the leader in Connectware, tod that it will debut its new USB Plus Series of powered USB solutions at Comdex in the USB Pavilion at booth 874 demonstrate USB PlusPower technology from major point-of-sale system manufacturers, including Wincor Nixd NCR, TPG, Symbol and Epson.

□USB PlusPower is the next big thing in retail systems technology, and we are aggressively developing produc leverage these benefits for retailers,□ said Stephen Popovich, chief operating officer of Inside Out Networks, tl Digi International that manufactures the products. □Powered USB is a natural fit for peripheral connections in environment. The ability to supply power and connectivity provides merchandisers a great deal of flexibility in e and maintaining sophisticated and cost effective point-of-sales systems.□

The new USB Plus Series is a complete line of powered USB solutions designed to simplify retail operations by a powered USB peripheral devices to be used with a standard, low-cost PC. By eliminating power supply bricks fc devices, the USB Plus Series saves space and simplifies system architecture. Available in card and hub solution line of powered USB products includes the Hubport"/4+, Hubport"/PCI+ and Edgeport®/42+.

Digi will also preview at Comdex its AnywhereUSB®/4+, an upcoming technology that network-enables powere devices via Digi□s patented USB Over IP® technology. This allows powered USB devices to be located anywhe or wireless LAN, eliminating the need for locally attached host PCs. AnywhereUSB/4+ features four powered US which enable powered USB devices to be centrally managed and monitored from a remote server or PC via an

□Through a mix of our complete line of powered USB products, retailers can now easily, and cost effectively, e retail systems to fulfill a wide range of point-of-sale applications,□ said Joseph Dunsmore, CEO, Digi Internatic retail industry is a strong target vertical market for Digi, and we are consistently developing new technologies t our position as a leading provider of retail technology networking solutions.□

About Digi International
Digi International, based in Minneapolis, is the leader in Connectware and makes device networking easy by de products and technologies that are cost effective and easy to use. Digi markets its products through a global n distributors and resellers, systems integrators and original equipment manufacturers (OEMs).

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For more information, visit Digi's Web site at www.digi.com, or call 877-912-3444 (U.S.) or 952-912-3444 (Int

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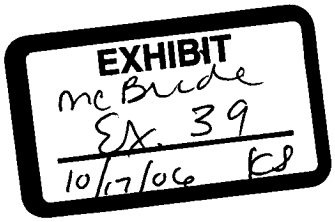

Digi Launches USB Plus Series of Powered USB Solutions

New hub and card solutions can eliminate power supply bricks enabling low-cost, PC-based retail syst

MINNETONKA, Minn. (Oct. 15, 2003) - Digi International (NASDAQ: DGII), the leader in Connectware, toda the launch of its new USB Plus Series □ a complete line of powered USB solutions designed to simplify retail op allowing powered USB peripheral devices to be used with a standard, low-cost PC. Available in card and hub sc new line of powered USB products includes the Hubport"/4+, Hubport"/PCI+ and Edgeport®/42+. The USB Pl saves space and simplifies system architecture by eliminating power supply bricks for USB devices.

□Many USB peripheral devices used in retail systems require individual power supply bricks, creating a space c mess of cables, bricks and power strips,□ said Stephen Popovich, chief operating officer and corporate vice pre Inside Out Networks, the division of Digi International that manufactures the products. □Powered USB techno developed to eliminate power supply bricks for USB devices like printers, bar-code scanners and signature capt The new USB Plus Series utilizes this technology to enable merchandisers to easily and cost effectively transfor small footprint PC into a high-performance retail system with powered USB device compatibility.□

Each solution offers four powered USB ports that are compatible with both standard USB and powered USB dev ports offer cable locking mechanisms to ensure a secure connection to peripheral devices. Hubport/4+ is an e> powered hub that connects to a standard USB port. Hubport/PCI+ is a card solution and is available in both in powered and externally powered versions, allowing it to be used with virtually any PC, regardless of its availabl Hubport/PCI+ utilizes power balancing technology to provide maximum power to 12 volt and 24-volt peripheral exhausting the PC□s five or 12-volt power. For added flexibility, Edgeport/42+ offers four powered USB and tv serial DB-9 ports, allowing the connection of powered USB, standard USB and legacy serial devices in a single l

□The addition of the powered USB products to our extensive line of connectivity solutions extends our ability t customers easily, and cost effectively, connect peripheral devices.□ said Joseph Dunsmore, CEO, Digi Internat retail industry is a strong target vertical market for Digi, and these new offerings simplify point-of-sale solution unique combination of connectivity and power.□

About Digi International
Digi International, based in Minneapolis, is the leader in Connectware and makes device networking easy by de products and technologies that are cost effective and easy to use. Digi markets its products through a global n distributors and resellers, systems integrators and original equipment manufacturers (OEMs).

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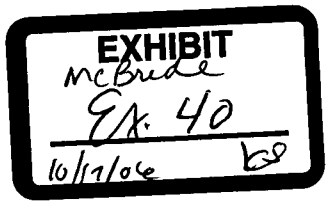
For more information, visit Digi's Web site at www.digi.com, or call 877-912-3444 (U.S.) or 952-912-3444 (Int

All brand names and product names are trademarks or registered trademarks of their respective companies.



EXHIBIT
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Ex. 41
10/17/06 KB

ScanSource Eases Device Connectivity With Addition of Digi Prod

Greenville, S.C./Minneapolis, Minn. (May 17, 2004) – ScanSource, Inc., {NASDAQ: SCSC}, the leading i value-added distributor of specialty technology products, today announced an agreement with Digi Internationa DGII), the leader in Connectware, to distribute Digi connectivity products, including USB products, multiport se device servers and wireless serial adapters. Ideal for retail/point-of-sale (POS) applications, these solutions ma networking easy and enable retail solution providers to offer their customers increased speed, improved data t enhanced connectivity for retail/POS peripheral devices.

ScanSource is offering Digi's USB Plus series of USB PlusPower solutions, Edgeport USB-to-serial converters, D multiport serial cards, Portserver® TS device servers and Wavespeed™/S Bluetooth® wireless serial adapters. products simplify retail systems operations and easily Web- and network-enable serial and USB devices such a scanners, credit card readers and receipt printers.

"Digi's products can solve many connectivity problems in today's retail environment," said Paul Constantine, vi of merchandising, ScanSource. "We're excited to offer our solution providers these quality products as they car ease of implementation of retail solutions."

Now available through ScanSource, the Digi USB Plus Series is a complete line of USB PlusPower, or powered U designed to simplify retail operations by allowing powered USB peripheral devices to be used with a standard, I Powered USB technology saves retailers space and simplifies POS system architecture by eliminating individual bricks for USB peripheral devices. Edgeport USB-to-serial converters offer an out-of-the-box (external) alterna cards for instant I/O expansion.

Also available through ScanSource, Digi Neo multiport serial cards deliver reliable serial port expansion in stan profile universal PCI boards, with a variety of cabling and connector options. Portserver TS device servers allow easily web and network-enable serial devices with seamless integration into existing applications. The Wavespe wireless serial adapter utilizes Bluetooth technology to provide wireless serial cable replacement for any EIA-2 device. The Wavespeed/S instantly increases user mobility and is the first device of its kind suitable for missior applications.

"ScanSource provides quality service and support to its reseller partners, and they understand the importance connectivity," said Larry Kraft, vice president of Americas sales and global marketing, Digi International. "Their expertise along with our products will enable POS resellers to offer their end-user customers high-quality techn outstanding customer support."

By purchasing these products through ScanSource, resellers can access the value-added services ScanSource c including training, education, technical support, partner marketing, e-commerce solutions and system integrati

For more information, visit www.scansource.com or www.digi.com or contact your ScanSource sales representa

About Digi International
Digi International, based in Minneapolis, is the leader in Connectware and makes device networking easy by developing products and technologies that are cost effective and easy to use. Digi markets through a global network of distributors and resellers, systems integrators and original equipment manufacture

About ScanSource, Inc.
ScanSource, Inc. is the leading international distributor of specialty technology products, including automatic ic and data capture (AIDC) and point-of-sale (POS) products through its ScanSource sales unit; Avaya voice, data converged communications products through its Catalyst Telecom sales unit; and communications products fro NEC through its Paracon sales unit.

The Company serves the North America marketplace and has an international segment which sells AIDC and P(Latin America and Europe. Founded in 1992, the Company markets products from more than 80 technology ma to over 15,000 value-added technology resellers and is committed to empowering them with tools and services help them grow. For more information, call the toll-free sales telephone number at 800.944.2432 or visit

www.scansource.com.

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For more information, visit Digi's Web site at www.digi.com, or call 877-912-3444 (U.S.) or 952-912-3444 (Int

All brand names and product names are trademarks or registered trademarks of their respective companies.

Trademark	Case Number/Subcase Country Name	Application Number/Date	Publication Number/Date	Registration Number/Date	Status Next Renewal
ACCELEPORT	11307-006001/	74/576,477		2,034,188	Registered
	United States of America	24-Sep-1994	04-Jul-1995	28-Jan-1997	28-Jan-2007

Class(es): 9 ***Attorney(s):*** MYS
Division: Digi International, Inc. ***Division Ref:***
Agent Name: ***Agent Ref:***
Owner Name: Digi International Inc.
Goods: Class: 9
Computer hardware and software for providing communication between a computer network file server and multiple modems.

ANYWHEREUSB	11307-267001/	76/330,350		2,733,128	Registered
	United States of America	25-Oct-2001	26-Mar-2002	01-Jul-2003	01-Jul-2013

Class(es): 09 ***Attorney(s):*** MYS
Division: Digi International, Inc. ***Division Ref:***
Agent Name: ***Agent Ref:***
Owner Name: Digi International Inc.
Goods: Class:09
Computer hardware, namely, expansion modules used to provide connectivity of computer peripherals over an IP network.

CONNECTCORE	11307-483001/	78/585,298			ALLOWED
	United States of America	11-Mar-2005	20-Dec-2005		

Class(es): 9 ***Attorney(s):*** MYS
Division: Digi International, Inc. ***Division Ref:***
Agent Name: ***Agent Ref:***
Owner Name: Digi International Inc.
Goods: Computer hardware, namely, modules with embedded software used to achieve processing functionality and networking capabilities in a single system, in Class 9.

EXHIBIT
McBride
Ex. 42
10/17/06 KS

Trademark	Case Number/Subcase Country Name	Application Number/Date	Publication Number/Date	Registration Number/Date	Status Next Renewal
DATAFIRE	11307-017001/	74/591,783		2,041,060	Registered
	United States of America	28-Oct-1994	18-Jul-1995	25-Feb-1997	25-Feb-2007
Class(es):	9		***Attorney(s):***	MYS	
Division:	Digi International, Inc.		***Division Ref:***		
Agent Name:			***Agent Ref:***		
Owner Name:	Digi International Inc.				
Goods:	Class: 9 Computer hardware and software for remote communications and data transmission with a local area network.				
DEVICEMATE	11307-495001/	76/333,311		2,722,444	Registered
	United States of America	02-Nov-2001	16-Apr-2002	03-Jun-2003	03-Jun-2013
Class(es):	9		***Attorney(s):***	MYS	
Division:	Digi International, Inc.		***Division Ref:***		
Agent Name:			***Agent Ref:***		
Owner Name:	Digi International Inc.				
Goods:	Computer hardware and software for remote monitoring of devices over the internet or local network, in Class 9				
DIGI	11307-239001/	76/258,111		2,630,891	Registered
	United States of America	16-May-2001	16-Jul-2002	08-Oct-2002	08-Oct-2012
Class(es):	09,42		***Attorney(s):***	MYS	
Division:	Digi International, Inc.		***Division Ref:***		
Agent Name:			***Agent Ref:***		
Owner Name:	Digi International Inc.				
Goods:	Class:09 Computer network connectivity hardware and computer network connectivity software, namely, multi-modem communication adapters, multiport serial adapters, USB-to serial converters, USB expansion hubs, USB remote access servers, terminal servers, printer servers, device servers, and network serial concentrators, all used to provide wired and wireless connectivity between local and wide area networks, to provide Universal Serial Bus (USB) connectivity, to provide remote access to local and wide area networks, to provide firewall security, and to provide Internet access. Class:42 Consulting and design services in connection with computer network connectivity hardware, wired and wireless, and computer network connectivity software; maintenance, repair and technical support in the field of computer network connectivity hardware and computer network connectivity software, namely, telephone support provided to customers.				

Trademark	Case Number/Subcase Country Name	Application Number/Date	Publication Number/Date	Registration Number/Date	Status Next Renewal
DIGI (Block Letter)	11307-025001/	75/193,725		2,319,992	Registered
	United States of America	05-Nov-1996	30-Nov-1999	22-Feb-2000	22-Feb-2010

Class(es): 9,37,40,41,42 ***Attorney(s):*** MYS

Division: Digi International, Inc. ***Division Ref:***

Agent Name: ***Agent Ref:***

Owner Name: Digi International Inc.

Goods: Class: 9
Computer network connectivity hardware and software.

Class:37
Maintenance and/or repair of computer network connectivity hardware.

Class:40
Manufacture of computer network connectivity hardware to the specification of others.

Class:41
Training, namely, providing classes and seminars in the use of computer network connectivity hardware and software.

Class:42
Design for others of computer network connectivity hardware and software; maintenance, repair and technical support in the field of network connectivity hardware and software, namely, telephone support provided to purchasers and users of computer hardware and software, and writing of computer network connectivity software for others.

Trademark	Case Number/Subcase Country Name	Application Number/Date	Publication Number/Date	Registration Number/Date	Status Next Renewal
DIGI (Stylized)	11307-026001/	75/193,524		2,317,478	Registered
	United States of America	05-Nov-1996	23-Nov-1999	15-Feb-2000	15-Feb-2010

Class(es): 9,37,40,41,42 ***Attorney(s):*** MYS

Division: Digi International, Inc. ***Division Ref:***

Agent Name: ***Agent Ref:***

Owner Name: Digi International Inc.

Goods: Class: 9
Microcomputer circuit boards and peripherals for use in connection with multi-user systems and local area networks; and microcomputer software, namely, software for operating such microcomputer hardware, software for terminal emulations, software for data communications in multi-user systems, software for data communications in local area networks and software for remote local area network access.

Class:37
Maintenance and/or repair of computer network connectivity hardware.

Class:40
Manufacture of computer network connectivity hardware to the specification of others.

Class:41
Training, namely, providing classes and seminars in the use of computer network connectivity hardware and software.

Class:42
Design for others of computer network connectivity hardware and software; maintenance, repair and technical support in the field of network connectivity hardware and software, namely, telephone support provided to purchasers and users of computer hardware and software, and writing of computer network connectivity software for others.

Image Title: DIGI (Stylized)

Trademark	Case Number/Subcase Country Name	Application Number/Date	Publication Number/Date	Registration Number/Date	Status Next Renewal
DIGI and Design	11307-027001/	74/547,516		2,019,613	Registered
	United States of America	11-Jul-1994	24-Oct-1995	26-Nov-1996	26-Nov-2006

Class(es): 9 ***Attorney(s):*** MYS

Division: Digi International, Inc. ***Division Ref:***

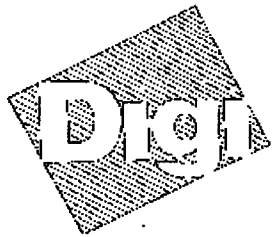
Agent Name: ***Agent Ref:***

Owner Name: Digi International Inc.

Goods: Class: 9

Microcomputer circuit boards and peripherals for use in connection with multi-user systems and local area networks; and microcomputer software, namely, software for operating such microcomputer hardware, software for terminal emulation, software for data communications in multi-user systems, software for data communications in local area networks, and software for remote local area network access.

Image Title: DIGI and Design (The mark is lined to indicate the color green.)



Trademark	Case Number/Subcase Country Name	Application Number/Date	Publication Number/Date	Registration Number/Date	Status Next Renewal
DIGI and Design	11307-028001/	75/207,246		2,369,665	Registered
	United States of America	03-Dec-1996	04-Jan-2000	25-Jul-2000	25-Jul-2010

Class(es): 37,40,41,42 ***Attorney(s):*** MYS

Division: Digi International, Inc. ***Division Ref:***

Agent Name: ***Agent Ref:***

Owner Name: Digi International Inc.

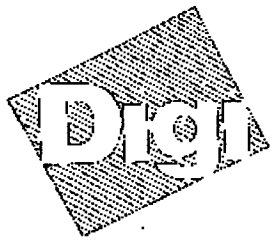
Goods: Class:37
Maintenance and or repair of computer network connectivity hardware.

Class:40
Manufacture of computer network connectivity hardware and software to the specification of others.

Class:41
Training, namely, providing classes and seminars in the use of computer network connectivity hardware and software.

Class:42
Design for others of computer network connectivity hardware and software; maintenance, repair and technical support in the field of network connectivity computer software.

Image Title: DIGI and Design (The mark is lined to indicate the color green.)



Trademark	Case Number/Subcase Country Name	Application Number/Date	Publication Number/Date	Registration Number/Date	Status Next Renewal
DIGI and Design	11307-029001/	75/215,067		2,200,945	Registered
	United States of America	18-Dec-1996	11-Aug-1998	03-Nov-1998	03-Nov-2008

Class(es): 9,37,40,41,42 ***Attorney(s):*** MYS

Division: Digi International, Inc. ***Division Ref:***

Agent Name: ***Agent Ref:***

Owner Name: Digi International Inc.

Goods: Class: 9
Computer network connectivity hardware and software.

Class:37
Maintenance and/or repair of computer network connectivity hardware.

Class:40
Manufacture of computer network connectivity hardware to the specification of others.

Class:41
Training, namely, providing classes and seminars in the use of computer network connectivity hardware and software.

Class:42
Design for others of computer network connectivity hardware and software; maintenance, repair and technical support in the field of network connectivity hardware and software, namely, telephone support provided to purchasers and users of computer hardware and software, and writing of computer network connectivity software for others.

Image Title: DIGI and Design

Trademark	Case Number/Subcase Country Name	Application Number/Date	Publication Number/Date	Registration Number/Date	Status Next Renewal
DIGI CLASSICBOARD	11307-030001/	75/118,415		2,148,245	Registered
	United States of America	13-Jun-1996	04-Feb-1997	31-Mar-1998	31-Mar-2008
Class(es):	9		***Attorney(s):***	MYS	
Division:	Digi International, Inc.		***Division Ref:***		
Agent Name:			***Agent Ref:***		
Owner Name:	Digi International Inc.				
Goods:	Class: 9 Computer network connectivity hardware and software.				
DIGI CONNECT	11307-430001/	76/554,843		2,912,411	Registered
	United States of America	14-Oct-2003	28-Sep-2004	21-Dec-2004	21-Dec-2014
Class(es):	09		***Attorney(s):***	MYS	
Division:	Digi International, Inc.		***Division Ref:***		
Agent Name:			***Agent Ref:***		
Owner Name:	Digi International Inc.				
Goods:	Class:09 Computer network connectivity hardware and computer network connectivity software				
DIGI CONNECT EM	11307-436001/	78/380,031			ALLOWED
	United States of America	08-Mar-2004	28-Dec-2004		
Class(es):	09		***Attorney(s):***	MYS	
Division:	Digi International, Inc.		***Division Ref:***		
Agent Name:			***Agent Ref:***		
Owner Name:	Digi International Inc.				
Goods:	Class:09 Computer network connectivity hardware, namely, embedded device server modules.				

Trademark	Case Number/Subcase Country Name	Application Number/Date	Publication Number/Date	Registration Number/Date	Status Next Renewal
DIGI CONNECT ME	11307-416001/	76/509,257		2,925,639	Registered
	United States of America	24-Apr-2003	01-Jun-2004	08-Feb-2005	08-Feb-2015
Class(es):	09		***Attorney(s):***	MYS	
Division:	Digi International, Inc.		***Division Ref:***		
Agent Name:			***Agent Ref:***		
Owner Name:	Digi International Inc.				
Goods:	Class:09 Computer network connectivity hardware computer network connectivity software.				
DIGI CONNECT SP	11307-437001/	78/380,060		3,071,921	Registered
	United States of America	08-Mar-2004	28-Dec-2004	21-Mar-2006	21-Mar-2016
Class(es):	09		***Attorney(s):***	MYS	
Division:	Digi International, Inc.		***Division Ref:***		
Agent Name:			***Agent Ref:***		
Owner Name:	Digi International Inc.				
Goods:	Class:09 Computer network connectivity hardware, namely, device servers.				
DIGI CONNECT WI-EM	11307-440001/	78/392,316		3,022,000	Registered
	United States of America	29-Mar-2004	07-Dec-2004	29-Nov-2005	29-Nov-2015
Class(es):	09		***Attorney(s):***	MYS	
Division:	Digi International, Inc.		***Division Ref:***		
Agent Name:			***Agent Ref:***		
Owner Name:	Digi International Inc.				
Goods:	Class:09 Computer network connectivity hardware, namely, wireless device server modules.				

Trademark	Case Number/Subcase Country Name	Application Number/Date	Publication Number/Date	Registration Number/Date	Status Next Renewal
DIGI CONNECT Wi-ME	11307-439001/	78/392,292		3,021,998	Registered
	United States of America	29-Mar-2004	07-Dec-2004	29-Nov-2005	29-Nov-2015
Class(es):	09		***Attorney(s):***	MYS	
Division:	Digi International, Inc.		***Division Ref:***		
Agent Name:			***Agent Ref:***		
Owner Name:	Digi International Inc.				
Goods:	Class:09 Computer network connectivity hardware, namely, wireless device server modules.				
DIGI CONNECTPORT	11307-485001/	78/624,244			ALLOWED
	United States of America	05-May-2005	24-Jan-2006		
Class(es):	9		***Attorney(s):***	MYS	
Division:	Digi International, Inc.		***Division Ref:***		
Agent Name:			***Agent Ref:***		
Owner Name:	Digi International Inc.				
Goods:	Computer hardware (in Class 9)				
DIGI CONNECTS and Design	11307-032001/	74/655,746		2,193,984	Registered
	United States of America	04-Apr-1995	28-Nov-1995	06-Oct-1998	06-Oct-2008
Class(es):	9		***Attorney(s):***	MYS	
Division:	Digi International, Inc.		***Division Ref:***		
Agent Name:			***Agent Ref:***		
Owner Name:	Digi International Inc.				
Goods:	Class: 9 Computer hardware and software for data communications and hardware and software designed to operate with data communications products.				

Image Title: DIGI CONNECTS and Design

Trademark	Case Number/Subcase Country Name	Application Number/Date	Publication Number/Date	Registration Number/Date	Status Next Renewal
DIGI CONNECTWARE	11307-417001/	76/510,783		2,915,625	Registered
	United States of America	30-Apr-2003	12-Oct-2004	04-Jan-2005	04-Jan-2015

Class(es): 09,37,42 ***Attorney(s):*** MYS

Division: Digi International, Inc. ***Division Ref:***

Agent Name: ***Agent Ref:***

Owner Name: Digi International Inc.

Goods: Class:09
Computer network connectivity hardware and computer network connectivity software.

Class:37
Maintenance and repair of computer network connectivity hardware.

Class:42
Design for others of computer network connectivity hardware and software; maintenance and repair of computer software; technical support in the field of network connectivity hardware and software, namely, telephone support provided to purchasers and users of computer hardware and software.

Trademark	Case Number/Subcase Country Name	Application Number/Date	Publication Number/Date	Registration Number/Date	Status Next Renewal
DIGI CONNECTWARE & DESIGN	11307-219001/	76/192,414		2,743,267	Registered
	United States of America	09-Jan-2001	09-Jul-2002	29-Jul-2003	29-Jul-2013

Class(es): 09 ***Attorney(s):*** MYS

Division: Digi International, Inc. ***Division Ref:***

Agent Name: ***Agent Ref:***

Owner Name: Digi International Inc.

Goods: Class:09
Computer network connectivity hardware for data communications.

Image Title: DIGI CONNECTWARE & DESIGN

Trademark	Case Number/Subcase Country Name	Application Number/Date	Publication Number/Date	Registration Number/Date	Status Next Renewal
DIGI EASYPOWER	11307-320001/	78/146,966		2,960,718	Registered
	United States of America	24-Jul-2002	08-Apr-2003	07-Jun-2005	07-Jun-2015
Class(es):	09		***Attorney(s):***	MYS	
Division:	Digi International, Inc.		***Division Ref:***		
Agent Name:			***Agent Ref:***		
Owner Name:	Digi International Inc.				
Goods:	Class:09 Computer network connectivity hardware.				
DIGI FLEX	11307-341001/	76/495,426		3,038,875	Registered
	United States of America	06-Mar-2003	21-Oct-2003	10-Jan-2006	10-Jan-2016
Class(es):	09		***Attorney(s):***	MYS	
Division:	Digi International, Inc.		***Division Ref:***		
Agent Name:			***Agent Ref:***		
Owner Name:	Digi International Inc.				
Goods:	Class:09 Computer hardware and embedded computer software used to connect serial devices to a network.				
DIGI INTERNATIONAL	11307-033001/	74/480,054		2,132,925	Registered
	United States of America	18-Jan-1994	08-Aug-1995	27-Jan-1998	27-Jan-2008
Class(es):	9		***Attorney(s):***	MYS	
Division:	Digi International, Inc.		***Division Ref:***		
Agent Name:			***Agent Ref:***		
Owner Name:	Digi International Inc.				
Goods:	Class: 9 Microcomputer hardware, circuit boards, microcomputer peripherals, and software, namely, software for operating such microcomputer hardware, software for terminal emulation, software for data communications in multi-user systems, software for data communications in local area networks, and software for remote local area network access, all for use in data communications.				

Trademark	Case Number/Subcase Country Name	Application Number/Date	Publication Number/Date	Registration Number/Date	Status Next Renewal
DIGI INTERNATIONAL	11307-034001/	75/576,649		2,392,683	Registered
	United States of America	27-Oct-1998	16-Jun-2000	10-Oct-2000	10-Oct-2010

Class(es): 37,40,41,42 ***Attorney(s):*** MYS
Division: Digi International, Inc. ***Division Ref:***
Agent Name: ***Agent Ref:***
Owner Name: Digi International Inc.
Goods: Class:37
Maintenance and/or repair of computer network connectivity hardware.

Class:40
Manufacture of computer network connectivity hardware and software to the specification of others.

Class:41
Training, namely providing classes and seminars in the use of computer network connectivity hardware and software.

Class:42
Design for others of computer network connectivity hardware and software and technical support in the field of network connectivity hardware and software, namely, providing information and instructions regarding products via telephone, telefax and via the internet.

DIGI NEO	11307-227001/	76/239,207		2,701,154	Registered
	United States of America	11-Apr-2001	16-Jul-2002	25-Mar-2003	25-Mar-2013

Class(es): 09 ***Attorney(s):*** MYS
Division: Digi International, Inc. ***Division Ref:***
Agent Name: ***Agent Ref:***
Owner Name: Digi International Inc.
Goods: Class:09
Computer network connectivity hardware and computer network connectivity software.

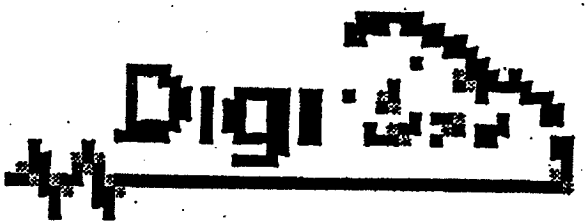
Trademark	Case Number/Subcase Country Name	Application Number/Date	Publication Number/Date	Registration Number/Date	Status Next Renewal
DIGI ONE	11307-262001/	76/310,132		2,765,124	Registered
	United States of America	07-Sep-2001	28-May-2002	16-Sep-2003	16-Sep-2013
	Class(es): 09		***Attorney(s):*** MYS		
	Division: Digi International, Inc.		***Division Ref:***		
	Agent Name:		***Agent Ref:***		
	Owner Name: Digi International Inc.				
	Goods: Class:09 Computer network connectivity hardware, namely, external and embedded computer hardware used to network enable serial components				
DIGI ONE IA REALPORT	11307-345001/	76/492,565		2,802,149	Registered
	United States of America	26-Feb-2003	14-Oct-2003	06-Jan-2004	06-Jan-2014
	Class(es): 09		***Attorney(s):*** MYS		
	Division: Digi International, Inc.		***Division Ref:***		
	Agent Name:		***Agent Ref:***		
	Owner Name: Digi International Inc.				
	Goods: Class:09 Computer network connectivity hardware and software, namely, external and embedded computer hardware and embedded computer software used to network enable serial components for industrial automation environments and applications.				
DIGI ONE REALPORT	11307-344001/	76/492,566		2,802,150	Registered
	United States of America	26-Feb-2003	14-Oct-2003	06-Jan-2004	06-Jan-2014
	Class(es): 09		***Attorney(s):*** MYS		
	Division: Digi International, Inc.		***Division Ref:***		
	Agent Name:		***Agent Ref:***		
	Owner Name: Digi International Inc.				
	Goods: Class:09 Computer network connectivity hardware and software, namely, external and embedded computer hardware and embedded computer software used to network enable serial components.				

Trademark	Case Number/Subcase Country Name	Application Number/Date	Publication Number/Date	Registration Number/Date	Status Next Renewal
DIGI PASSPORT	11307-524001/	78/818,157			Pending
	United States of America	17-Feb-2006			
Class(es):	9		***Attorney(s):***	MYS	
Division:	Digi International, Inc.		***Division Ref:***		
Agent Name:			***Agent Ref:***		
Owner Name:	Digi International Inc.				
Goods:	Computer network connectivity hardware and embedded computer network connectivity software, in Class 9.				
DIGIBOARD	11307-045001/	74/071,818		1,666,495	Registered
	United States of America	22-Jun-1990	10-Sep-1991	03-Dec-1991	03-Dec-2011
Class(es):	9		***Attorney(s):***	MYS	
Division:	Digi International, Inc.		***Division Ref:***		
Agent Name:			***Agent Ref:***		
Owner Name:	Digi International Inc.				
Goods:	Class: 9 Microcomputer hardware and computer programs for use in communications.				
DIGIFAX	11307-050001/	75/201,743		2,616,097	Registered
	United States of America	21-Nov-1996		10-Sep-2002	10-Sep-2012
Class(es):	9		***Attorney(s):***	MYS	
Division:	Digi International, Inc.		***Division Ref:***		
Agent Name:			***Agent Ref:***		
Owner Name:	Digi International Inc.				
Goods:	Class: 9 Computer network connectivity hardware and software.				

Trademark	Case Number/Subcase Country Name	Application Number/Date	Publication Number/Date	Registration Number/Date	Status Next Renewal
DIGILINE & DESIGN	11307-406001/	78/168,205		2,907,196	Registered
	United States of America	26-Sep-2002	22-Jul-2003	30-Nov-2004	30-Nov-2014

Class(es): 42 ***Attorney(s):*** MYS
Division: Digi International, Inc. ***Division Ref:***
Agent Name: ***Agent Ref:***
Owner Name: Digi International Inc.
Goods: Class:42
Technical support services, namely, troubleshooting of computer hardware and software problems provided to purchasers and users of computer connectivity hardware and computer connectivity software by telephone and via the Internet.

Image Title: DIGILINE & DESIGN



DISPLAY OVER IP	11307-468001/	78/491,238			ALLOWED
	United States of America	29-Sep-2004	13-Sep-2005		

Class(es): 9 ***Attorney(s):*** MYS
Division: Digi International, Inc. ***Division Ref:***
Agent Name: ***Agent Ref:***
Owner Name: Digi International Inc.
Goods: Computer hardware and computer software used to transmit data over Internet Protocol (in Class 9)

DYNAMIC C	11307-491001/	75/005,617		2,066,363	Registered
	United States of America	13-Oct-1995	11-Mar-1997	03-Jun-1997	03-Jun-2007

Class(es): 9 ***Attorney(s):*** MYS
Division: Digi International, Inc. ***Division Ref:***
Agent Name: ***Agent Ref:***
Owner Name: Digi International Inc.
Goods: computer software, namely a compiler, editor and debugger and user manuals sold together therewith, in Class 9

Trademark	Case Number/Subcase Country Name	Application Number/Date	Publication Number/Date	Registration Number/Date	Status Next Renewal
DYNAMICBALANCE	11307-431001/	76/560,978			Published
	United States of America	03-Nov-2003	09-May-2006		
Class(es):	09		***Attorney(s):***	MYS	
Division:	Digi International, Inc.		***Division Ref:***		
Agent Name:			***Agent Ref:***		
Owner Name:	Digi International Inc.				
Goods:	Computer hardware used to manage the power output across devices, in Class 9.				
EDGEPORT	11307-226001/	76/235,986		2,522,453	Registered
	United States of America	05-Apr-2001	02-Oct-2001	25-Dec-2001	25-Dec-2011
Class(es):	09		***Attorney(s):***	MYS	
Division:	Digi International, Inc.		***Division Ref:***		
Agent Name:			***Agent Ref:***		
Owner Name:	Digi International Inc.				
Goods:	Class:09 Computer connectivity hardware, namely, serial interface devices, peripherals and connectors.				
EDISPLAY	11307-494001/	76/447,739		2,765,921	Registered
	United States of America	09-Sep-2002		16-Sep-2003	16-Sep-2013
Class(es):	9		***Attorney(s):***	MYS	
Division:	Digi International, Inc.		***Division Ref:***		
Agent Name:			***Agent Ref:***		
Owner Name:	Digi International Inc.				
Goods:	Single board computers and operator interfaces including display screens and human machine interfaces, in Class 9				
ENCRYPTED REALPORT	11307-432001/	76/560,977		3,024,168	Registered
	United States of America	03-Nov-2003	14-Sep-2004	06-Dec-2005	06-Dec-2015
Class(es):	09		***Attorney(s):***	MYS	
Division:	Digi International, Inc.		***Division Ref:***		
Agent Name:			***Agent Ref:***		
Owner Name:	Digi International Inc.				
Goods:	Class:09 Computer software used to secure data transmitted across a computer network.				

Trademark	Case Number/Subcase Country Name	Application Number/Date	Publication Number/Date	Registration Number/Date	Status Next Renewal
ETHERLITE	11307-119001/	74/616,098		2,010,936	Registered
	United States of America	28-Dec-1994	19-Sep-1995	22-Oct-1996	22-Oct-2016
	Class(es): 09		***Attorney(s):*** MYS		
	Division: Digi International, Inc.		***Division Ref:***		
	Agent Name:		***Agent Ref:***		
	Owner Name: Digi International Inc.				
	Goods: Class:09 Computer serial interface controllers and software for use with the same.				
freekvm	11307-539001/	78-837,973			Pending
	United States of America	15-Mar-2006			
	Class(es): 9		***Attorney(s):*** MYS		
	Division: Digi International, Inc.		***Division Ref:***		
	Agent Name:		***Agent Ref:***		
	Owner Name: Digi International Inc.				
	Goods: Computer software used to provide remote access to the graphical desktops of managed computer systems, in Class 9.				

Trademark	Case Number/Subcase Country Name	Application Number/Date	Publication Number/Date	Registration Number/Date	Status Next Renewal
Green Skewed Rectangle Design	11307-064001/	75/114,031		2,503,197	Registered
	United States of America	04-Jun-1996		30-Oct-2001	30-Oct-2011

Class(es): 9,37,40,41,42 ***Attorney(s):*** MYS

Division: Digi International, Inc. ***Division Ref:***

Agent Name: ***Agent Ref:***

Owner Name: Digi International Inc.

Goods: Class: 9
Computer network connectivity hardware and software.

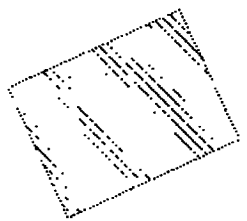
Class:37
Maintenance and/or repair of computer network connectivity hardware and software.

Class:40
Manufacture of computer network connectivity hardware to the order and specification of others.

Class:41
Training in the use of computer network connectivity hardware and software.

Class:42
Computer software design in the field of computer network connectivity software and hardware, and technical support in the field of computer network connectivity hardware and software, namely, telephone support provided to purchasers and end-users of computer hardware and software, and writing of computer network connectivity software for others.

Image Title: Green Skewed Rectangle Design



Trademark	Case Number/Subcase Country Name	Application Number/Date	Publication Number/Date	Registration Number/Date	Status Next Renewal
Head Design	11307-492001/	78/333,940		2,989,034	Registered
	United States of America	26-Nov-2003	14-Jun-2005	30-Aug-2005	30-Aug-2015

Class(es): 9 ***Attorney(s):*** MYS
Division: Digi International, Inc. ***Division Ref:***
Agent Name: ***Agent Ref:***
Owner Name: Digi International Inc.
Goods: Circuit boards; embedded control operating systems software and user manuals sold as a unit; electronic controller boards for educational, hobby, personal and industrial use; computer software for use in compiling, editing and debugging computer programs downloaded to embedded controllers and user manuals sold as a unit; microprocessor-based computer processors for the development, design and implementation of embedded computer software and hardware; single board computers and operator interface boards, including display screens and human machine interfaces; computer hardware, namely, platforms for building and programming microprocessor-based circuits; computer hardware for electronic control which is programmed with a computer language, in Class 9

Image Title: Head Design

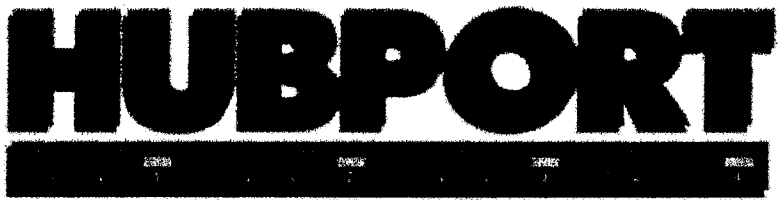
HUBPORT	11307-243001/	76/258,665		2,762,944	Registered
	United States of America	16-May-2001		09-Sep-2003	09-Sep-2013

Class(es): 09 ***Attorney(s):*** MYS
Division: Digi International, Inc. ***Division Ref:***
Agent Name: ***Agent Ref:***
Owner Name: Digi International Inc.
Goods: Class:09
Computer hardware used to connect serial interface ports and computer peipherals to a computer network.

Trademark	Case Number/Subcase Country Name	Application Number/Date	Publication Number/Date	Registration Number/Date	Status Next Renewal
HUBPORT 1 2 3 4 & DESIGN	11307-434001/ United States of America	78/345,081 23-Dec-2003	 19-Jul-2005		ALLOWED

Class(es): 09
Attorney(s): MYS
Division: Digi International, Inc.
Division Ref:
Agent Name:
Agent Ref:
Owner Name: Digi International Inc.
Goods: Class:09
Computer hardware.

Image Title: HUBPORT 1 2 3 4 & DESIGN



Trademark	Case Number/Subcase Country Name	Application Number/Date	Publication Number/Date	Registration Number/Date	Status Next Renewal
I INSIDE OUT NETWORKS A DIGI INTERNATIONAL COMPANY & Design	11307-438001/ United States of America	76/585,418 07-Apr-2004	 28-Feb-2006	3,134,664 29-Aug-2006	Registered 29-Aug-2016

Class(es): 09,42 ***Attorney(s):*** MYS
Division: Digi International, Inc. ***Division Ref:***
Agent Name: ***Agent Ref:***
Owner Name: Digi International Inc.
Goods: Class:09
Computer network connectivity hardware.

Class:42
Providing technical support to purchasers of computer hardware via telephone and the Internet.

Image Title: I INSIDE OUT NETWORKS A DIGI INTERNATIONAL COMPANY & Design

IMAGINE TOOLS	11307-493001/ United States of America	78/333,933 26-Nov-2003	 14-Jun-2005	2,991,748 06-Sep-2005	Registered 06-Sep-2015

Class(es): 9 ***Attorney(s):*** MYS
Division: Digi International, Inc. ***Division Ref:***
Agent Name: ***Agent Ref:***
Owner Name: Z-World, Inc.
Goods: Circuit boards; embedded control operating systems software and user manuals sold as a unit; electronic controller boards for educational, hobby, personal and industrial use; computer software for use in compiling, editing and debugging computer programs downloaded to embedded controllers and user manuals sold as a unit; microprocessor-based computer processors for the development, design and implementation of embedded computer software and hardware; single board computers and operator interface boards, including display screens and human machine interfaces; computer hardware, namely, platforms for building and programming microprocessor-based circuits; computer hardware for electronic control which is programmed with a computer language, in Class 9

Trademark	Case Number/Subcase Country Name	Application Number/Date	Publication Number/Date	Registration Number/Date	Status Next Renewal
INSIDE OUT NETWORKS	11307-220001/	75/428,551		2,951,893	Registered
	United States of America	04-Feb-1998	15-Jul-2003	17-May-2005	17-May-2015

Class(es): 09 ***Attorney(s):*** MYS
Division: Digi International, Inc. ***Division Ref:***
Agent Name: ***Agent Ref:***
Owner Name: Digi International Inc.
Goods: Class:09
Workgroup and personal data/voice communications equipment, namely, serial interface devices used to connect electronic devices to a network, peripherals and connectors.

MAKING DEVICE NETWORKING EASY	11307-410001/	76/498,955		2,946,505	Registered
	United States of America	20-Mar-2003	08-Jun-2004	03-May-2005	03-May-2015

Class(es): 09,42 ***Attorney(s):*** MYS
Division: Digi International, Inc. ***Division Ref:***
Agent Name: ***Agent Ref:***
Owner Name: Digi International Inc.
Goods: Class:09
Computer network connectivity hardware and software.

Class:42
Consulting and design services in connection with computer network connectivity hardware and computer network connectivity software; maintenance, repair and technical support in the field of network connectivity hardware and software, namely, telephone support provided to purchasers and users fo computer hardware and software.

Trademark	Case Number/Subcase Country Name	Application Number/Date	Publication Number/Date	Registration Number/Date	Status Next Renewal
MAKING DEVICE NETWORKING EASY (Stylized)	11307-412001/	76/498,956		2,990,041	Registered
	United States of America	20-Mar-2003	08-Jun-2004	30-Aug-2005	30-Aug-2015

Class(es): 09,42 ***Attorney(s):*** MYS
Division: Digi International, Inc. ***Division Ref:***
Agent Name: ***Agent Ref:***
Owner Name: Digi International Inc.
Goods: Class:09
Computer network connectivity hardware and software.

Class:42
Consulting and design services in connection with computer network connectivity hardware and computer network connectivity software; maintenance, repair and technical support in the field of network connectivity hardware and software, namely, telephone support provided to purchasers and users of computer hardware and software.

Image Title: MAKING DEVICE NETWORKING EASY (Stylized)

NET +	11307-289001/	75/546,009		3,002,155	Registered
	United States of America	01-Sep-1998	05-Nov-2002	27-Sep-2005	27-Sep-2015

Class(es): 09 ***Attorney(s):*** MYS
Division: Digi International, Inc. ***Division Ref:***
Agent Name: ***Agent Ref:***
Owner Name: Digi International Inc.
Goods: Class:09
Computer hardware, namely, embedded networking systems on silicon chips for connecting peripherals into a network; computer software, namely, software for operating embedded network systems.

Trademark	Case Number/Subcase Country Name	Application Number/Date	Publication Number/Date	Registration Number/Date	Status Next Renewal
NET + FAST IP	11307-292001/	76/021,126		2,583,307	Registered
	United States of America	07-Apr-2000	26-Dec-2000	18-Jun-2002	18-Jun-2012
Class(es):	09		***Attorney(s):***	MYS	
Division:	Digi International, Inc.		***Division Ref:***		
Agent Name:			***Agent Ref:***		
Owner Name:	Digi International Inc.				
Goods:	Class:09 Computer software for connecting peripherals into a network.				
NET + IMAGING	11307-286001/	76/020,340		2,557,096	Registered
	United States of America	07-Apr-2000	02-Jan-2001	02-Apr-2002	02-Apr-2012
Class(es):	09		***Attorney(s):***	MYS	
Division:	Digi International, Inc.		***Division Ref:***		
Agent Name:			***Agent Ref:***		
Owner Name:	Digi International Inc.				
Goods:	Class:09 Computer hardware and software for connecting peripherals into a network.				
NET + OS	11307-293001/	76/020,947		2,530,709	Registered
	United States of America	07-Apr-2000	28-Nov-2000	15-Jan-2002	15-Jan-2012
Class(es):	09		***Attorney(s):***	MYS	
Division:	Digi International, Inc.		***Division Ref:***		
Agent Name:			***Agent Ref:***		
Owner Name:	Digi International Inc.				
Goods:	Class:09 Computer software for connecting peripherals into a network.				

Trademark	Case Number/Subcase Country Name	Application Number/Date	Publication Number/Date	Registration Number/Date	Status Next Renewal
NET + SOFTWARE	11307-290001/	76/045,238		2,638,132	Registered
	United States of America	10-May-2000	30-Jul-2002	22-Oct-2002	22-Oct-2012
Class(es):	09		***Attorney(s):***	MYS	
Division:	Digi International, Inc.		***Division Ref:***		
Agent Name:			***Agent Ref:***		
Owner Name:	Digi International Inc.				
Goods:	Class:09 Computer imaging software for use with printers and copiers.				
NET + WORKS	11307-294001/	75/738,490		2,649,832	Registered
	United States of America	28-Jun-1999	18-Dec-2001	12-Nov-2002	12-Nov-2012
Class(es):	09		***Attorney(s):***	MYS	
Division:	Digi International, Inc.		***Division Ref:***		
Agent Name:			***Agent Ref:***		
Owner Name:	Digi International Inc.				
Goods:	Class:09 Integrated circuit chips and computer software for connecting computer peripherals.				

Trademark	Case Number/Subcase Country Name	Application Number/Date	Publication Number/Date	Registration Number/Date	Status Next Renewal
NET SILICON & DESIGN	11307-287001/	76/020,341		2,435,343	Registered
	United States of America	07-Apr-2000		13-Mar-2001	13-Mar-2011

Class(es): 09 ***Attorney(s):*** MYS
Division: Digi International, Inc. ***Division Ref:***
Agent Name: ***Agent Ref:***
Owner Name: Digi International Inc.
Goods: Class:09
Computer hardware and software for connecting peripherals into a network.

Image Title: NET SILICON & DESIGN

NETBLAZER	11307-112001/	74/107,593		1,658,877	Registered
	United States of America	22-Oct-1990	09-Jul-1991	01-Oct-1991	01-Oct-2011

Class(es): 9 ***Attorney(s):*** MYS
Division: Digi International, Inc. ***Division Ref:***
Agent Name: ***Agent Ref:***
Owner Name: Digi International Inc.
Goods: Class: 9
Computer and data communications products; namely, communications server for internetworking a large number or remote users and networks into an enterprose-wide network.

Trademark	Case Number/Subcase Country Name	Application Number/Date	Publication Number/Date	Registration Number/Date	Status Next Renewal
NETSILICON	11307-299001/	75/501,077		2,579,066	Registered
	United States of America	12-Jun-1998	01-Jun-1999	11-Jun-2002	11-Jun-2012

Class(es): 09 ***Attorney(s):*** MYS
Division: Digi International, Inc. ***Division Ref:***
Agent Name: ***Agent Ref:***
Owner Name: Digi International Inc.
Goods: Class:09
Computer hardware and software for connecting peripherals into a network.

Trademark	Case Number/Subcase Country Name	Application Number/Date	Publication Number/Date	Registration Number/Date	Status Next Renewal
NETSILICON A DIGI INTERNATIONAL COMPANY & DESIGN	11307-277001/	76/378,351		2,801,034	Registered
	United States of America	04-Mar-2002	17-Dec-2002	30-Dec-2003	30-Dec-2013

Class(es): 09,41,42 ***Attorney(s):*** MYS
Division: Digi International, Inc. ***Division Ref:***
Agent Name: ***Agent Ref:***
Owner Name: Digi International Inc.
Goods: Class:09
Computer network connectivity hardware and computer connectivity software.

Class:41
Providing training services in connection with computer network connectivity hardware and software.

Class:42
Consulting and design services in connection with computer network connectivity hardware and software; maintenance, repair and technical support in the field of computer network connectivity hardware and software.

Image Title: NETSILICON A DIGI INTERNATIONAL COMPANY & DESIGN

Trademark	Case Number/Subcase Country Name	Application Number/Date	Publication Number/Date	Registration Number/Date	Status Next Renewal
PLUS 8	11307-079001/	73/765,408		1,563,130	Registered
	United States of America	23-Nov-1988	08-Aug-1989	31-Oct-1989	31-Oct-2009
Class(es):	9		***Attorney(s):***	MYS	
Division:	Digi International, Inc.		***Division Ref:***		
Agent Name:			***Agent Ref:***		
Owner Name:	Digi International Inc.				
Goods:	Class: 9 Computer peripherals, circuit boards and parts therefor, and their related user manuals sold as a unit.				
PORTASSIST	11307-082001/	75/513,794		2,443,059	Registered
	United States of America	06-Jul-1998	18-May-1999	10-Apr-2001	10-Apr-2011
Class(es):	9		***Attorney(s):***	MYS	
Division:	Digi International, Inc.		***Division Ref:***		
Agent Name:			***Agent Ref:***		
Owner Name:	Digi International Inc.				
Goods:	Class: 9 Computer network connectivity hardware and software.				
PORTBUILDER	11307-268001/	76/330,344			ALLOWED
	United States of America	25-Oct-2001	18-Jan-2005		
Class(es):	09		***Attorney(s):***	MYS	
Division:	Digi International, Inc.		***Division Ref:***		
Agent Name:			***Agent Ref:***		
Owner Name:	Digi International Inc.				
Goods:	Class:09 Computer hardware, namely, expansion modules used to provide connectivity of computer peripherals over an IP network.				

Trademark	Case Number/Subcase Country Name	Application Number/Date	Publication Number/Date	Registration Number/Date	Status Next Renewal
PORTSERVER	11307-083001/	74/465,891		1,934,407	Registered
	United States of America	03-Dec-1993		07-Nov-1995	07-Nov-2015
Class(es):	9		***Attorney(s):***	MYS	
Division:	Digi International, Inc.		***Division Ref:***		
Agent Name:			***Agent Ref:***		
Owner Name:	Digi International Inc.				
Goods:	Class: 9 Computer hardware and software for connecting serial devices to a network.				
PORTSERVER	11307-540001/				Unfiled
	United States of America				
Class(es):	9		***Attorney(s):***	MYS	
Division:	Digi International, Inc.		***Division Ref:***		
Agent Name:			***Agent Ref:***		
Owner Name:	Digi International Inc.				
Goods:	Computer hardware and software for connecting serial devices to a network, in Class 9.				
PRINTDIRECTOR	11307-330001/	73/706,168		1,501,186	Registered
	United States of America	19-Jan-1988	31-May-1988	23-Aug-1988	23-Aug-2008
Class(es):	09		***Attorney(s):***	MYS	
Division:	Digi International, Inc.		***Division Ref:***		
Agent Name:			***Agent Ref:***		
Owner Name:	Digi International Inc.				
Goods:	Class:09 Computer peripherals for printer management, printer sharing, file transfer and sharing, modem sharing, mini/mainframe gateways, laser printer sharing and common database and software sharing.				
RABBIT	11307-490001/	75/652,874		2,678,460	Registered
	United States of America	03-Mar-1999	01-Jan-2002	21-Jan-2003	21-Jan-2013
Class(es):	9		***Attorney(s):***	MYS	
Division:	Digi International, Inc.		***Division Ref:***		
Agent Name:			***Agent Ref:***		
Owner Name:	Digi International Inc.				
Goods:	Computer hardware, namely microprocessors, in Class 9				

Trademark	Case Number/Subcase Country Name	Application Number/Date	Publication Number/Date	Registration Number/Date	Status Next Renewal
Rabbit Design	11307-489001/	75/653,177		2,601,553	Registered
	United States of America	03-Mar-1999	09-Oct-2001	30-Jul-2002	30-Jul-2012

Class(es): 9 ***Attorney(s):*** MYS
Division: Digi International, Inc. ***Division Ref:***
Agent Name: ***Agent Ref:***
Owner Name: Digi International Inc.
Goods: Computer hardware, namely microprocessors, in Class 9

Image Title: Rabbit Design

RABBIT RIO	11307-545001/	78/932,216			Pending
	United States of America	18-Jul-2006			

Class(es): 9 ***Attorney(s):*** MYS
Division: Digi International, Inc. ***Division Ref:***
Agent Name: ***Agent Ref:***
Owner Name: Digi International Inc.
Goods: Computer hardware, in Class 9.

RABBIT SEMICONDUCTOR	11307-543001/	78/932,038			Pending
	United States of America	18-Jul-2006			

Class(es): 9, 41, 42 ***Attorney(s):*** MYS
Division: Digi International, Inc. ***Division Ref:***
Agent Name: ***Agent Ref:***
Owner Name: Digi International Inc.
Goods: Computer hardware and computer software, in Class 9;

Training services, namely, providing classes and seminars in the use of computer hardware and software, in Class 41;

Technical support services for computer hardware and computer software offered by telephone and via the Internet, in Class 42.

Trademark	Case Number/Subcase Country Name	Application Number/Date	Publication Number/Date	Registration Number/Date	Status Next Renewal
RABBITCORE	11307-498001/	78/727,199		3,145,192	Registered
	United States of America	05-Oct-2005	27-Jun-2006	19-Sep-2006	19-Sep-2016
Class(es):	9		***Attorney(s):***	MYS	
Division:	Digi International, Inc.		***Division Ref:***		
Agent Name:			***Agent Ref:***		
Owner Name:	Digi International Inc.				
Goods:	Computer hardware, namely microprocessor modules with embedded software, in Class 9.				
RABBITFLEX	11307-521001/	78/778,242			SUSPENDED
	United States of America	21-Dec-2005			
Class(es):	9		***Attorney(s):***	MYS	
Division:	Digi International, Inc.		***Division Ref:***		
Agent Name:			***Agent Ref:***		
Owner Name:	Digi International Inc.				
Goods:	Computer hardware, namely, semi-custom embedded controllers developed using web interfaces, in Class 9.				
RABBITSYS	11307-520001/	78/778,220			SUSPENDED
	United States of America	21-Dec-2005			
Class(es):	9		***Attorney(s):***	MYS	
Division:	Digi International, Inc.		***Division Ref:***		
Agent Name:			***Agent Ref:***		
Owner Name:	Digi International Inc.				
Goods:	Computer hardware and computer software, namely, embedded operating systems.				
RAPIDPORT/4	11307-214001/	75/620,192		2,331,836	Registered
	United States of America	13-Jan-1999	26-Nov-1999	21-Mar-2000	21-Mar-2010
Class(es):	09		***Attorney(s):***	MYS	
Division:	Digi International, Inc.		***Division Ref:***		
Agent Name:			***Agent Ref:***		
Owner Name:	Digi International Inc.				
Goods:	Class:09 Electronic communications devices for coupling a universal serial bus (USB) port to phone lines to provide access to computer networks via modems.				

Trademark	Case Number/Subcase Country Name	Application Number/Date	Publication Number/Date	Registration Number/Date	Status Next Renewal
REALPORT	11307-086001/	74/670,922		2,118,245	Registered
	United States of America	08-May-1995	17-Dec-1996	02-Dec-1997	02-Dec-2007
Class(es):	9		***Attorney(s):***	MYS	
Division:	Digi International, Inc.		***Division Ref:***		
Agent Name:			***Agent Ref:***		
Owner Name:	Digi International Inc.				
Goods:	Class: 9 Computer software for telecommunications and remote access, namely, software for controlling local area networks and serial port computer peripherals and cards.				
SEAMLESS MIGRATION TO TOTAL INTEGRATION	11307-484001/	78/594,628			Published
	United States of America	24-Mar-2005	18-Jul-2006		
Class(es):	9		***Attorney(s):***	MYS	
Division:	Digi International, Inc.		***Division Ref:***		
Agent Name:			***Agent Ref:***		
Owner Name:	Digi International Inc.				
Goods:	Computer network connectivity hardware and embedded computer network connectivity software (in Class 9).				
SMARTPORT	11307-094001/	73/717,201		1,663,848	Registered
	United States of America	17-Mar-1988		05-Nov-1991	05-Nov-2011
Class(es):	9		***Attorney(s):***	MYS	
Division:	Digi International, Inc.		***Division Ref:***		
Agent Name:			***Agent Ref:***		
Owner Name:	Digi International Inc.				
Goods:	Class: 9 Computer circuit boards for multiuser computer configurations.				

Trademark	Case Number/Subcase Country Name	Application Number/Date	Publication Number/Date	Registration Number/Date	Status Next Renewal
USB OVER IP	11307-271001/	76/333,431		2,768,372	Registered
	United States of America	01-Nov-2001		23-Sep-2003	23-Sep-2013

Class(es): 09 ***Attorney(s):*** MYS
Division: Digi International, Inc. ***Division Ref:***
Agent Name: ***Agent Ref:***
Owner Name: Digi International Inc.
Goods: Class:09
Computer hardware, namely, expansion modules used to provide connectivity of computer peripherals.

USB OVER IP & Design	11307-433001/	76/566,024			ALLOWED
	United States of America	09-Dec-2003	20-Dec-2005		

Class(es): 09 ***Attorney(s):*** MYS
Division: Digi International, Inc. ***Division Ref:***
Agent Name: ***Agent Ref:***
Owner Name: Digi International Inc.
Goods: Class:09
Computer hardware.

Image Title: USB OVER IP & Design

Trademark	Case Number/Subcase Country Name	Application Number/Date	Publication Number/Date	Registration Number/Date	Status Next Renewal
WATCHPORT	11307-318001/	76/428,744		2,882,448	Registered
	United States of America	09-Jul-2002	16-Sep-2003	07-Sep-2004	07-Sep-2014
Class(es):	09		***Attorney(s):***	MYS	
Division:	Digi International, Inc.		***Division Ref:***		
Agent Name:			***Agent Ref:***		
Owner Name:	Digi International Inc.				
Goods:	Class:09 Environmental monitoring systems comprised of computer hardware, software, electronic sensors and cameras, all used to monitor and collect data and transmit it to a host or a remote computer system, used to provide alerts in the case of triggering events, for use in applications such as manufacturing, medical, point-of-sale applications such as kiosks and ATMs and surveillance.				
WAVESPEED	11307-215001/	76/175,317		2,767,359	Registered
	United States of America	04-Dec-2000	04-Jun-2002	23-Sep-2003	23-Sep-2013
Class(es):	09		***Attorney(s):***	MYS	
Division:	Digi International, Inc.		***Division Ref:***		
Agent Name:			***Agent Ref:***		
Owner Name:	Digi International Inc.				
Goods:	Class:09 Computer connectivity hardware, namely, a computer interface device for adding wireless local area network ports via a universal serial bus port.				
WHEN RELIABILITY MATTERS	11307-541001/	78-906,019			Pending
	United States of America	12-Jun-2006			
Class(es):	9, 42		***Attorney(s):***	MYS	
Division:	Digi International, Inc.		***Division Ref:***		
Agent Name:			***Agent Ref:***		
Owner Name:	Digi International Inc.				
Goods:	Computer network connectivity hardware and software, in Class 9; Consulting and design services in connection with computer network connectivity hardware and software;technical support in the field of computer network connectivity hardware and software, namely,telephone and online support provided to purchasers and users, in Class 42.				

Trademark	Case Number/Subcase Country Name	Application Number/Date	Publication Number/Date	Registration Number/Date	Status Next Renewal
WWW.DIGI.COM	11307-238001/	76/261,216		2,624,198	Registered
	United States of America	22-May-2001	02-Jul-2002	24-Sep-2002	24-Sep-2012

Class(es): 09,42 ***Attorney(s):*** MYS
Division: Digi International, Inc. ***Division Ref:***
Agent Name: ***Agent Ref:***
Owner Name: Digi International Inc.
Goods: Class:09
Computer network connectivity hardware and computer network connectivity software, namely, multi-modem communication adapters, multiport serial adapters, USB-to serial converters, USB expansion hubs, USB remote access servers, terminal servers, print servers, device servers, and network serial concentrators, all used to provide wired and wireless connectivity between local and wide area networks, to provide Universal Serial Bus (USB) connectivity, to provide remote access to local and wide area networks, to provide firewall security, and to provide Internet access.

Class:42
Consulting and design services in connection with computer network connectivity hardware and computer network connectivity software; maintenance and repair of computer network software; and technical support services, namely, troubleshooting of computer hardware and software problems via a telephone support service provided to purchasers and users of network connectivity hardware and software.

Z.WORLD & Design	11307-487001/	75/932,332		2,553,709	Registered
	United States of America	01-Mar-2000	14-Nov-2000	26-Mar-2002	26-Mar-2012

Class(es): 9 ***Attorney(s):*** MYS
Division: Digi International, Inc. ***Division Ref:***
Agent Name: ***Agent Ref:***
Owner Name: Digi International Inc.
Goods: Circuit boards and operating systems software and user manuals packaged therewith as a unit, in Class 9

Image Title: Z.WORLD & Design

Trademark	Case Number/Subcase Country Name	Application Number/Date	Publication Number/Date	Registration Number/Date	Status Next Renewal
ZWORLD & Design	11307-488001/	75/449,021		2,255,344	Registered
	United States of America	12-Mar-1998	30-Mar-1999	22-Jun-1999	22-Jun-2009

Class(es): 9 ***Attorney(s):*** MYS

Division: Digi International, Inc. ***Division Ref:***

Agent Name: ***Agent Ref:***

Owner Name: Digi International Inc.

Goods: Circuit boards and operating systems software and user manuals for use therewith sold as a unit, in Class 9

Image Title: ZWORLD & Design

Tuesday, October 17, 2006

Report Selection

Record Count 86

- (•) by Trademark
- ( ) by Country
- ( ) by Division
- ( ) by Owner

Preview before printing ☑

Report Format
- ( ) Concise
- (•) Comprehensive

Goods
- (•) Print
- ( ) Do Not Print

Remarks
- ( ) Print
- (•) Do Not Print

Include Design. Countries
- ( ) Print
- (•) Do Not Print

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- (•) Print
- ( ) Do Not Print

Date Range

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From : To :

Division: 11307

Country: US

Area: Attorney:

Trademark:

Owner:

Status Codes:
- (•) Active
- ( ) Inactive
- ( ) All

Status(es):

Int. Cls.: 9, 37, 40, 41 and 42

Prior U.S. Cls.: 21, 23, 26, 36, 38, 100, 101, 103, 106 and 107

United States Patent and Trademark Office

Reg. No. 2,319,992

Registered Feb. 22, 2000

TRADEMARK
SERVICE MARK
PRINCIPAL REGISTER

DIGI

DIGI INTERNATIONAL INC. (DELAWARE CORPORATION)
11001 BREN ROAD EAST
MINNETONKA, MN 55343

FOR: COMPUTER NETWORK CONNECTIVITY HARDWARE AND SOFTWARE, IN CLASS 9 (U.S. CLS. 21, 23, 26, 36 AND 38).

FIRST USE 7-23-1985; IN COMMERCE 7-23-1985.

FOR: MAINTENANCE AND/OR REPAIR OF COMPUTER NETWORK CONNECTIVITY HARDWARE, IN CLASS 37 (U.S. CLS. 100, 103 AND 106).

FIRST USE 7-23-1985; IN COMMERCE 7-23-1985.

FOR: MANUFACTURE OF COMPUTER NETWORK CONNECTIVITY HARDWARE TO THE SPECIFICATION OF OTHERS, IN CLASS 40 (U.S. CLS. 100, 103 AND 106).

FIRST USE 7-23-1985; IN COMMERCE 7-23-1985.

FOR: TRAINING, NAMELY, PROVIDING CLASSES AND SEMINARS IN THE USE OF COMPUTER NETWORK CONNECTIVITY HARDWARE AND SOFTWARE, IN CLASS 41 (U.S. CLS. 100, 101 AND 107).

FIRST USE 7-23-1985; IN COMMERCE 7-23-1985.

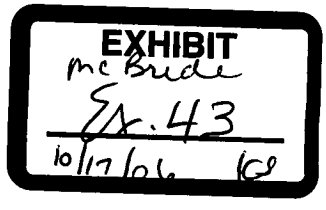
FOR: DESIGN FOR OTHERS OF COMPUTER NETWORK CONNECTIVITY HARDWARE AND SOFTWARE; MAINTENANCE, REPAIR AND TECHNICAL SUPPORT IN THE FIELD OF NETWORK CONNECTIVITY HARDWARE AND SOFTWARE, NAMELY, TELEPHONE SUPPORT PROVIDED TO PURCHASERS AND USERS OF COMPUTER HARDWARE AND SOFTWARE, AND WRITING OF COMPUTER NETWORK CONNECTIVITY SOFTWARE FOR OTHERS, IN CLASS 42 (U.S. CLS. 100 AND 101).

FIRST USE 7-23-1985; IN COMMERCE 7-23-1985.

OWNER OF U.S. REG. NOS. 1,663,234 AND 1,666,495.

SER. NO. 75-193,725, FILED 11-5-1996.

J. TINGLEY, EXAMINING ATTORNEY



Int. Cl.: 9

Prior U.S. Cls.: 21, 23, 26, 36, and 38

Reg. No. 2,132,925

United States Patent and Trademark Office

Registered Jan. 27, 1998

TRADEMARK
PRINCIPAL REGISTER

DIGI INTERNATIONAL

DIGI INTERNATIONAL INC. (DELAWARE CORPORATION)
6400 FLYING CLOUD DRIVE
EDEN PRAIRIE, MN 55344

FOR: MICROCOMPUTER HARDWARE, CIRCUIT BOARDS, MICROCOMPUTER PERIPHERALS, AND SOFTWARE, NAMELY, SOFTWARE FOR OPERATING SUCH MICROCOMPUTER HARDWARE, SOFTWARE FOR TERMINAL EMULATION, SOFTWARE FOR DATA COMMUNICATIONS IN MULTI-USER SYSTEMS, SOFTWARE FOR DATA COMMUNICATIONS IN LOCAL AREA NETWORKS, AND SOFTWARE FOR REMOTE LOCAL AREA NETWORK ACCESS, ALL FOR USE IN DATA COMMUNICATIONS, IN CLASS 9 (U.S. CLS. 21, 23, 26, 36 AND 38).

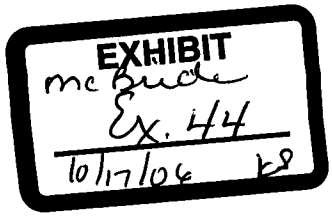
FIRST USE 4-30-1997; IN COMMERCE 4-30-1997.

OWNER OF U.S. REG. NOS. 1,663,234 AND 1,666,496.

NO CLAIM IS MADE TO THE EXCLUSIVE RIGHT TO USE "INTERNATIONAL", APART FROM THE MARK AS SHOWN.

SN 74-480,054, FILED 1-18-1994.

CYNTHIA A. MANCINI, EXAMINING ATTORNEY



Int. Cl.: 9

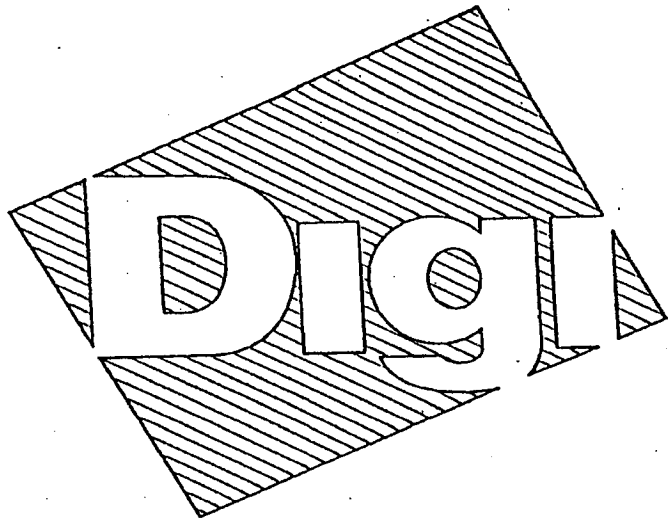
Prior U.S. Cls.: 21, 23, 26, 36, and 38

United States Patent and Trademark Office

Reg. No. 2,019,613

Registered Nov. 26, 1996

TRADEMARK
PRINCIPAL REGISTER



DIGI INTERNATIONAL INC. (DELAWARE CORPORATION)
6400 FLYING CLOUD DRIVE
EDEN PRAIRIE, MN 55344

FOR: MICROCOMPUTER CIRCUIT BOARDS AND PERIPHERALS FOR USE IN CONNECTION WITH MULTI-USER SYSTEMS AND LOCAL AREA NETWORKS; AND MICROCOMPUTER SOFTWARE, NAMELY, SOFTWARE FOR OPERATING SUCH MICROCOMPUTER HARDWARE, SOFTWARE FOR TERMINAL EMULATION, SOFTWARE FOR DATA COMMUNICATIONS IN MULTI-USER SYSTEMS, SOFTWARE FOR DATA COMMUNICATIONS IN LOCAL AREA NETWORKS, AND SOFTWARE FOR REMOTE LOCAL AREA NETWORK ACCESS, IN CLASS 9 (U.S. CLS. 21, 23, 26, 36 AND 38).

FIRST USE 7-0-1994; IN COMMERCE 7-0-1994.

THE MARK IS LINED TO INDICATE THE COLOR GREEN.

SN 74-547,516, FILED 7-11-1994.

PETER CATALDO, EXAMINING ATTORNEY

EXHIBIT
McBride
Ex. 45
10/17/06 10

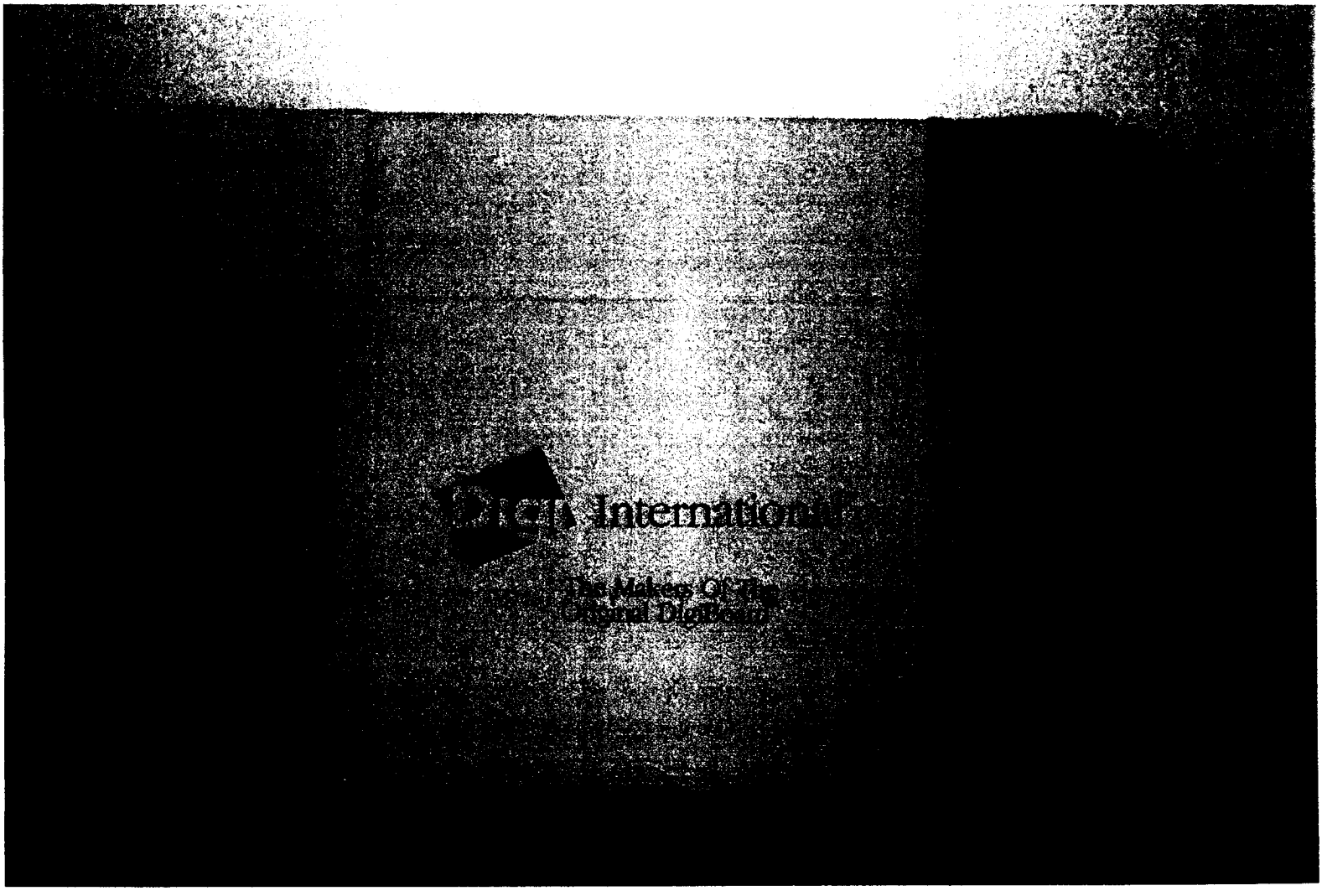
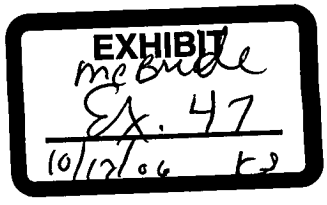


EXHIBIT
McBride
Ex. 46
10/17/06 KD

Digi® Neo™

Software Installation Guide



Digi® Neo™ Software Installation Guide

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DII 00132

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DII 00134

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DII 00135

Chapter 1. Introduction

Purpose

Use this guide for the following:

- An introduction to your Digi product, and how to install, configure and use the Digi product
- Configuration examples, where appropriate

Audience

This manual is intended for the person responsible for configuring and administering a Digi adapter or system. This person should have experience configuring network devices and be familiar with networking concepts.

Conventions

Following are the conventions used in this document:

- Special fonts
  - A special font is used for any input you need to enter. For example,

    `mkpconn`
  - Optional parameters will be displayed within square brackets. For example,

    `ditty [-a] [altpin]`

    The square brackets themselves are not actually part of the command, and should not be entered.
  - Variables will be displayed in italics. For example,

    `stty-digi` *`ttyname`*

    Substitute an appropriate TTY name for *ttyname* in the above command.
  - A vertical bar character (|) is used to denote a choice (logical "or"). For example,

    `set flow=on|off`

    The above command would be entered as either

    `set flow=on` or `set flow=off`.
- Keys and titles of dialog boxes, indexes, menu bars, windows, etc. appear exactly how they appear on the keyboard or on the screen.
- The word, Choose, can mean Click, Point, Select, Hit, Press and so on.

DII 00136

About the Access Resource CD

Software on the Access Resource CD

Use the Access Resource CD to install drivers and software for the following operating systems:

- Microsoft Windows 2000/Windows XP
- Microsoft Windows 95/98/Me
- Microsoft Windows NT 4.0
- Linux

About the CD-Based Product Documentation

In addition to this manual, documentation for drivers is provided on the Access Resource CD in HTML format. Digi recommends viewing this documentation with Internet Explorer 4.0 (or later) or Netscape Navigator 4.0 (or later).

Hardware installation cards, which are provided with your Digi adapter, are duplicated on the CD in Adobe PDF format. To view or print this documentation, you must have the Adobe Acrobat Reader installed on your system. You can download the reader from the Adobe web site.

Note: Some hardware installation cards are legal-sized documents (14" x 8.5"). If you want to print legal-sized PDF documents on letter-sized paper (11" x 8.5"), you must specify "fit to page" in the Acrobat print function.

About the Release Notes on the CD

Use the Release Notes to find out more about the current release of software on the CD. Release Notes are text files that can be viewed using the View Release Notes option.

Chapter 2. Microsoft Windows 2000/Windows XP

Accessing the DIGI CD

1. Place the CD in the system CD drive.
2. If you have Autorun enabled, the Digi CD menu will appear automatically. Otherwise, from the Start menu, choose Run and enter the following:

   `D: setup.bat`

   Where *D* represents the drive letter of your CD-ROM drive.

Installation Requirements

You need to install the Digi Neo adapter in your system before you can install the driver. See the Hardware Installation Guide for details.

Master Setup Process

Use this process to install and configure the Microsoft Windows 2000 or Windows XP device driver for Digi Neo adapters.

1. If you are upgrading the driver for a previously installed Digi Neo adapter, see Upgrading the Driver.
2. If you are installing a new adapter, see the appropriate Hardware Installation Guide for more information.

   Note: When you install multiple PCI adapters of the same type on a Windows system, it is sometimes difficult to determine which adapter you are configuring. To avoid confusion, you may wish to install and configure the adapters one at a time.
3. If you are installing the driver for the first time. See Installing the Driver.
4. The adapter is configured automatically. You should not have to change it. If you do need to, see Changing the Configuration.
5. If you want to install the Digi Port Authority for Windows application to monitor serial port activity on your system, see Installing DPA for Windows.

Upgrading the Driver

Use this procedure to upgrade a Digi device driver that is installed in your Windows 2000 or Windows XP system. Digi drivers may be delivered on a CD-ROM or downloaded from the Digi Support Web site (http://support.digi.com). Digi drivers for Microsoft Windows 2000 or Windows XP may be either signed or unsigned.

Procedure

1. From the Windows Desktop, right-click My Computer, then choose Properties > Hardware > Device Manager. Choose Multi-port serial adapters from the list of devices.
2. Choose a Digi adapter from the list, then choose Action > Properties.
3. On the Digi adapter Properties page, choose the Driver tab, then choose Update Driver. Do **not** uninstall the old driver. The Windows Upgrade Device Driver Wizard appears.
4. Choose Next. On the Install Hardware Device Drivers page, choose Display a list of known drivers for this device... > Next.
5. On the Select a Device Driver page, choose the name of the Digi adapter, then choose Have Disk.
6. Your new driver will be on a Digi CD-ROM or downloaded from the Digi Support Web site. Choose Browse to point to the appropriate driver location. The wizard should display the driver's .inf file at that location. Choose Open.
7. To install the new driver, choose OK > Next > Next.
8. For any new driver that is unsigned, Windows displays a "Digital Signature Not Found" message, explaining that the driver is not signed. Choose Yes to continue through the message.
9. Choose Finish to complete the wizard, then choose Close to close the Properties page. A message will display indicating that you must restart your system for the changes to take effect.

Installing the Driver

Use this procedure to install a Microsoft Windows 2000 or Windows XP driver for Digi Neo adapters either downloaded from the Digi Support Web site (http://support.digi.com) or located on the Digi CD-ROM.

Procedure

1. Turn on the system and start Windows.

   Windows automatically detects the adapter and starts the Found New Hardware Wizard.

2. Choose Next to start the installation.
3. Choose Search for a suitable driver for my device > Next.
4. Use one of the following installation methods:

   CD-ROM

   a. If installing from a Digi CD-ROM, choose Specify a location > Next.

      The driver is located at *D*:\drivers\windows\w2k\neo, where *D* represents the CD-ROM drive letter.

   b. Specify the location of the driver or browse to it on the CD-ROM, then choose OK.

   Downloaded

   a. If installing a downloaded driver, choose Specify a location > Next.

   b. Specify the location where you stored the downloaded driver, or browse to it, then choose OK.

5. When Windows indicates that it has located the driver, choose Next.

   If Windows displays a "Digital Signature Not Found" message, the Digi driver is not signed. You may see several of these warnings during the installation. Choose Yes to continue through each warning to ensure that the most current Digi drivers are installed from the path you specified.

6. Follow the instructions to complete the installation.

   The wizard now installs the driver for each port. The ports are automatically configured to the default parameters. If you need to change the port configuration, go to Changing the Configuration. Refer to the online help system for assistance.

   When the installation is complete, the adapter is ready to use. There is no need to restart Windows unless you are notified to do so.

Changing the Configuration

Use this procedure for Microsoft Windows 2000 or Windows XP to access the Digi Neo Properties page, if it is not already displayed.

Procedure

1. From the Control Panel, choose System > Hardware > Device Manager > Multi-port serial adapters.
2. Choose the adapter you wish to configure.
3. Choose Action > Properties.

   The Properties page appears.
4. Choose Advanced.

Configuration Options

You can access two configuration options through the Advanced tab on the Properties page: COM numbers and FIFO settings. The FIFO settings are advanced options that do not normally need to be changed. Choose Help on each option's configuration window for more information.

DII 00141

Chapter 3. Microsoft Windows 95/98/Me

Accessing the DIGI CD

1. Place the CD in the system CD-ROM drive.
2. If you have Autorun enabled, the Digi CD menu will appear automatically. Otherwise, from the Start menu, choose Run and enter the following:

   `D: setup.bat`

   Where *D* represents the drive letter of your CD-ROM drive.

Installation Requirements

You need to install the Digi Neo adapter in your system before you can install the driver. See the Hardware Installation Guide for details.

Master Setup Process

Use this process to install and configure the Microsoft Windows 95/98/Me device driver for Digi Neo adapters.

1. If you are upgrading the driver for a previously installed Digi Neo adapter, see Upgrading the Driver.
2. If you are installing a new adapter, see the appropriate Hardware Installation Guide for more information.

   Note: When you install multiple PCI adapters of the same type on a Windows system, it is sometimes difficult to determine which adapter you are configuring. To avoid confusion, you may wish to install and configure the adapters one at a time.
3. If you are installing the driver for the first time. See Installing the Driver.
4. The adapter is configured automatically. You should not have to change it. If you do need to, see Changing the Configuration.
5. If you want to install the Digi Port Authority for Windows application to monitor serial port activity on your system, see Installing DPA for Windows.

Upgrading the Driver

Use this procedure to upgrade a Digi device driver that is installed in your Windows 95/98/Me system. Digi drivers may be delivered on a CD-ROM or downloaded from the Digi Support Web site (http://support.digi.com).

Procedure

1. From the Windows Desktop, right-click My Computer, then choose Properties > Device Manager. Choose Multi-port serial adapters from the list of devices.
2. Choose a Digi adapter from the list, then choose Properties.
3. On the Digi adapter Properties page, choose the Driver tab, then choose Update Driver. Do **not** uninstall the old driver. The Windows Update Device Driver Wizard appears.
4. Choose Next. Under the question "What do you want Windows to do?" choose Search for a better driver... > Next.
5. Your new driver will be on a Digi CD-ROM or downloaded from the Digi Support Web site. Choose Specify a location, then choose Browse to point to the appropriate driver location.
6. Choose Next. Windows should indicate that it found an updated driver for your adapter. Under the question "What do you want to install?" choose The updated driver.
7. To install the new driver, choose Next > Next.
8. Choose Finish to complete the wizard, then choose Close to close the Properties page. A message will display indicating that you must restart your system for the changes to take effect.

Changing the Configuration

Use this procedure to change the configuration of the Digi ports.

Procedure

1. From the Start menu, choose Settings > Control Panel > System > Device Manager.

   View devices by type should already be selected by default.
2. Expand Multi-port Serial Cards.
3. Choose the Digi adapter you want to change and select Properties.
4. Choose the Port Configuration tab.

   Choose Help for more information about configuration options.

DII 00144

Chapter 4. Microsoft Windows NT 4.0

Accessing the DIGI CD

1. Place the CD in the system CD-ROM drive.
2. If you have Autorun enabled, the Digi CD menu will appear automatically. Otherwise, from the Start menu, choose Run and enter the following:

   `D: setup.bat`

   Where *D* represents the drive letter of your CD-ROM drive.

Installation Requirements

You need to perform the following tasks before you can install the driver:

1. Ensure that Microsoft Windows NT Service Pack 4 or later is installed on your system.
2. Install the Digi Neo adapter in your system. See the Hardware Installation Guide for details.

Master Setup Process

Use this setup process to install and configure the Microsoft Windows NT device driver for Digi Neo adapters.

1. Install the adapter. See the Hardware Installation Guide for more information.

   Note: When you install multiple PCI adapters of the same type on a Windows system, it is sometimes difficult to determine which adapter you are configuring. To avoid confusion, you may wish to install and configure the adapters one at a time.

2. Install the Windows NT 4.0 driver. See Installing the Driver: Downloaded or Installing the Driver: CD.
3. The configuration is done automatically. You should not have to change it. If you do need to, see Changing the Configuration.
4. If you want to install the Digi Port Authority for Windows application to monitor serial port activity on your system, see Installing DPA for Windows.

DII 00145

Installing the Driver: CD

Use this procedure to install a driver from the Digi CD. You should have already started the Digi CD front-end program.

Procedure

1. Choose an operating system.
2. Choose the Hardware product name.
3. Choose the Software Driver.
4. Choose Install Software.
5. Follow the prompts.

Installing the Driver: Downloaded

Use this procedure to install a driver that you have downloaded from the Digi Support Web site (http://support.digi.com).

Note: If you are installing multiple adapters, each adapter needs to be installed separately. You need to restart your computer before installing another adapter.

Procedure

1. Log on to Windows NT as Administrator.
2. From Start, choose Settings > Control Panel > Network > Adapters.
3. Do one of the following:
   - If this is the first time you have installed this driver, choose Add > Have Disk.
   - If you have installed an earlier version of this driver, choose Update.
4. Enter the path to where the driver is stored and then choose OK.
5. Choose the driver and then OK.
6. Choose OK on the Setup screen to complete installation.
7. The adapter appears on the Network Adapters list.
8. Choose Close and restart the computer.

DII 00146

Changing the Configuration

Use this procedure for Microsoft Windows NT to access the Neo Digi Setup window if it is not already displayed.

Procedure

1. From the Control Panel, choose Network > Adapters.
2. Choose the Neo Digi Adapter.
3. Choose Properties.

Configuration Options

Three configuration options are available on the Setup window. They are:

- Ports
- FIFO
- Baud Mapping

The FIFO and Baud Mapping options are advanced features that you usually do not need to change. For more information about configuration options, choose Help for the Setup window or for each option.

DII 00147

DII 00148

Chapter 5. Linux

Accessing the DIGI CD

1. Place the CD in the system CD-ROM drive.
2. Mount the CD using the following command:

   ```
   mount -t iso9660 -r /dev/cdrom /mnt/cdrom
   ```

3. Navigate to the cdrom directory:

   ```
   cd /mnt/cdrom
   ./setup
   ```

   The Digi CD menu appears.

Requirements and Considerations

Read the following information before beginning the installation of the Digi Neo driver.

Note: You must remove any previous versions of this driver before installing the new driver.

Hardware and Operating Systems Supported

The hardware and Linux distributions currently supported can be found in the Release Notes on the Digi Access Resource CD.

Installation Directory

The Digi Neo driver for Linux places the installation files in the /etc/digicpci directory. See man cpci and man dpa for more information.

The release notes are installed in different directories dependent on the Linux version being used. Enter the command `rpm -q -d cpci` to locate the release notes for your particular Linux version. The directory location and filenames are displayed.

DII 00149

Known limitations

- For Red Hat 7.0 and 7.1 you must use the kgcc compiler available with the RedHat distribution. The Linux default compiler gcc 2.96 does not compile the Digi Neo driver properly.
- The Linux tty subsystem is known to have throughput limitations. 460 kbps users can expect speed bottlenecks as a result of these limitations.
- SMP (symmetric multiprocessing) with 2.2.14 kernels and earlier experience a race condition in the Linux tty subsystem code, which causes buffer corruption problems. The Digi driver depends on the Linux tty subsystem to operate properly. SMP users must use a 2.2.15 or later kernel to properly install the driver. Uniprocessor users are not affected by this problem.

Master Setup Process

Use this overview as a general process for installing and configuring the Linux device driver for the Digi Neo adapters.

1. Read the Requirements and Considerations information.
2. Install the adapter. See the appropriate hardware installation card for more information.
3. Install the Linux driver. See: Installing the Driver: CD or Installing the Driver: Downloaded.

Installing the Driver: CD

Use this procedure to install a driver from the Digi CD. You should have already started the Digi CD front-end program.

Procedure

1. Choose an operating system.
2. Choose the Hardware product name.
3. Choose the Software Driver.
4. Choose Install Software.
5. Follow the prompts.

Installing the Driver: Downloaded (RPM)

Use this information to choose the most appropriate procedure to install a Linux driver that you have downloaded from the Digi ftp site.

Note: These procedures should be used only in Linux environments that support the installation and building of packages from an RPM repository. The procedures require that the following RPM directories exist and are used by RPM on your Linux system.

/usr/src/redhat/BUILD

/usr/src/redhat/RPMS

/usr/src/redhat/SOURCES

/usr/src/redhat/SPECS

/usr/src/redhat/SRPMS

Package Version and Revision

Certain commands used in the following procedures need to be entered with the correct package version and revision number.

Note: To determine package version and revision numbers, use this command:

`rpm -qp filename`

Example:

If the package version of the Linux driver is 1.0 and the revision is 2, then:

For this command variable:	This value would be used:
Version	1.0
Revision	2
For this command:	**This would be entered:**
`rpm -ivv cpci-version-revision.src.rpm`	`rpm -ivv cpci-1.0-2.src.rpm`

Standard Installation Procedure

Use this procedure to install the Linux driver.

1. Download the source RPM package. The RPM package can be found on Digi's web site, http://support.digi.com/drivers, or Digi's ftp site, ftp://ftp.digi.com. For consistency, you might consider downloading the source RPM to the directory /usr/src/redhat/SRPMS.
2. Install the .src.rpm with this command:

   `rpm -ivv cpci-version-revision.src.rpm`

   The command copies the specification file (/usr/src/redhat/SPECS/cpci-*version.revision*.spec) to the SPECS directory.
3. Create an RPM specific to your platform by executing the following commands:

   ```
   cd /usr/src/redhat/SPECS
   rpm -bb cpci-version.revision.spec
   ```
4. Install the RPM, just created by the previous step, using the following commands.

   ```
   cd /usr/src/redhat/RPMS/arch
   rpm -ivv cpci-version-revision.arch.rpm
   ```

   The *arch* value should be replaced with a string representing your architecture, such as i386 or alpha. This value is system dependent, and is chosen by your system when the RPM is built.

   Note: To install the driver on another system of the same architecture and Linux version, copy the following binary to the same location on the other system and execute the rpm command in this step:

   `/usr/src/redhat/RPMS/arch/cpci-version-revision.arch.rpm`
5. Use the following commands to verify that all files have been installed correctly:

   ```
   cd /usr/src/redhat/SPECS
   rpm -bl cpci-version.revision.spec
   ```

Device Names

The devices are created in /dev and have the following format:

Dial-in and Dial-out devices: ttyCP*n*, where *n* is the device number.

Device numbers start at zero and are numbered sequentially regardless of the number of adapters.

Example:

Ports 1 through 8 of an 8-port adapter are numbered ttyCP0 through ttyCP7. A second 4-port adapter is numbered sequentially after the 8-port adapter as ttyCP8 through ttyCP11.

DII 00152

Configuring Terminals and Dial-in Modems

Use the following examples to configure your Digi serial device for a terminal or dial-in modem. Digi ports are configured similarly to standard communications ports /dev/ttyS0 and /dev/ttyS1, although the actual name of the getty varies from system to system.

Note: The following information is only meant to serve as a guide.

- A common RedHat terminal install script where the getty is named getty_ps would be:

  ```
  dl:2345:respawn:/sbin/getty ttyCP1 DT9600 vt100
  ```

- A common Debian terminal install script where the getty is named agetty would be:

  ```
  D1:23:respawn:sbin/getty -L ttyCP1 19200 vt100
  ```

- An example of an mgetty modem script which is available both in Red Hat and Debian is:

  ```
  T3:23:respawn: /sbin/mgetty -x0 -s 115200 ttyCP3
  ```

Configuring a Printer

Use this procedure configure a printer.

Procedure

Use one of the following options to configure your printers with Linux drivers.

- Use the Linux printtool command.
- Set up the printers manually. To install a printer manually, add the following lines to the end of the inittab file when you are using hardware flow control with a Digi standard cable:

  ```
  DG01:2345:once: cat < /dev/ttyCP0 > /dev/null &

  dg01:2345:once:stty -F /dev/ttyCP0 crtscts -ixon -ixoff \
  -ixany
  ```


DII 00153

Chapter 6. Digi Port Authority (DPA) for Windows

Accessing the DIGI CD

1. Place the CD in the system CD drive.
2. If you have Autorun enabled, the Digi CD menu will appear automatically. Otherwise, from the Start menu, choose Run and enter the following:

   `D: setup.bat`

   Where *D* represents the drive letter of your CD-ROM drive.

Installing DPA for Windows: CD

Use this procedure to install DPA for Windows software from the Digi CD. You should have already started the Digi CD front-end program.

Procedure

1. Choose an Operating System.
2. Choose the Hardware product name.
3. Choose the Software product name (Digi Port Authority).
4. Choose Install Software.
5. Follow the prompts.

Installing DPA for Windows: Downloaded

Use this procedure to install DPA for Windows software you downloaded from the Digi Support Web site (http://support.digi.com). The installation file is a self-extracting executable named 40002180A.exe.

Procedure

1. From the Windows Start menu, choose Run.
2. In the Run window, choose Browse to navigate to the location of the downloaded file.
3. Choose 40002180A.exe (the name should appear in the File name field), then choose Open.
4. The path to the downloaded file should appear in the Open box in the Run window. Choose OK to begin the installation.
5. The InstallShield Wizard starts. Follow the wizard instructions to complete the installation.

DII 00155

Using DPA for Windows

Use this procedure to start DPA for Windows:

Procedure

1. From the Windows Start menu, choose Programs.
2. Choose Digi Port Authority from the Programs list to start the application.

When DPA for Windows starts, it displays a list of all serial ports it detects on your system. You can use DPA for Windows to test and monitor the state of serial ports you choose from this list.

See the online help in DPA for Windows for details about its display and controls.

PN:(1P)90000362 A

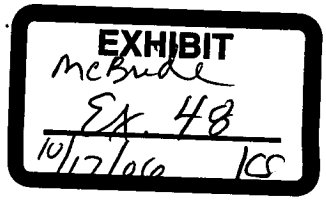
90000362A

Digi Operations

The Digi Operational section has been included in the OEM Program Guide to provide you with quick reference information. Digi reserves the right to change any portions thereof. The information may be updated periodically.

In this Guide, Digi Operations has been categorized in three sections:

SECTION 1	**Ordering Procedures**
SECTION 2	**Customer Support**
SECTION 3	**Engineering Services**



SECTION 1 Ordering Procedures

The following three elements should be considered when ordering product from Digi:

1) Forecasting
2) Ordering Procedures
3) Packaging requirements

1.0 Forecasting

Digi leadtimes are typically 10-12 weeks for unforecasted quantities and 4 weeks with a forecast. Leadtimes may vary based on international ship to locations and whether or not a freight forwarder is utilized.

It is our goal to continue to reduce leadtimes and increase flexibility, therefore Digi relies on the accuracy and completeness of your forecasts in order to plan production. It is desired that we receive a running six month forecast at least once a month.

2.0 Ordering Procedures

The following information must be available in order to deliver product in a timely fashion:

- Completed credit application (see Forms)
- Company Bill To address
- Company shipping to address(es)
- Terms of payment
- Preferred shipping method and/or account number
- Preferred expedited freight carrier and account number
- Preferred freight forwarder and account number for international shipments
- Contact names/phone numbers/fax numbers
- Product part numbers/descriptions
- Pricing and quantity
- Special packaging requirements
- Date of requested delivery

A written confirmation of the order can be provided at the request of the customer.

2.2 Rescheduling

2.2.1 Accelerating deliveries:

Notice must be provided up to 3 weeks before the scheduled delivery date. The customer should incur overnight charges if requesting expedited shipments.

The following is a guideline to rescheduling deliveries:

Increase delivery Request	**% of original order**
0 - 30 Calendar Days	Best efforts
31-60 Calendar Days	Increase order by 25%
61-90 Calendar Days	Increase order by 50%
90 + Days	No restrictions

2.2.2 Deferring Deliveries:

Notice must be provided up to 3 weeks before the scheduled delivery date and may only be rescheduled once with delivery within 180 days.

The following is a guideline to deferring deliveries.

Deferred delivery Request	**% of original order**
0 - 30 Calendar Days	None
31-60 Calendar Days	Decrease order by 25%
61-90 Calendar Days	Decrease order by 50%
90 + Days.	No restrictions

3.0 Packaging Requirments

Digi has the capability in most cases to conform to your packaging requirements. Generally, there is a pre-set lot size/minimum quantity buy for custom packaging which is determined by 1.) product type and 2.) bulk vs kit.

Custom packaging refers to any additional labels on the PCB assembly, external housing, individual kits, manuals, and overpacks labels other than the Digi standard labels.

Kits are referred to as an individual re-shippable boxes consisting of the desired content, for example, you may want to choose to have the PC/8e board only and a specific cable packaged together without a manual. The kits are then packaged in an **overpack**, (the quantity in the overpack depends on the product).

In **bulk** shipments, the following methods are used but vary in type and quantity according to product:

- PCB assemblies - Inserted into a antistatic bag, protected by a tri-fold cardboard sleeve.
- Cables - Individually wrapped in plastic
- I/O Connector Boxes - Individually wrapped in plastic

Note: Any custom packaging/and or labels will change the Bill of Material for your product to build, therefore a custom number will be assigned to your product.

The following must be received in order to establish custom labels:

- Product Specification, or list of Digi products
- Packaging Specification
- Barcode Specification, if any

Upon receipt of the product specification information, Digi will:

- Review the specifications
- Consult with your packaging engineer if necessary
- Generate and send samples for your approval

SECTION 2 Customer Service

Customer Service includes:

1) Technical Support assistance
2) Product Return
3) Product Repair

1.0 Technical Support Assistance

Technical support assistance is generally provided via telephone on a call back basis. You may call (612) 912-3456 and ask for technical support and you will be transferred to a call taker. He/She will ask and log the following:

- Name of caller
- Case ID# if applicable
- Company name
- Company telephone number
- On site number if calling from other location
- Product in question
- Operating system used
- Brief description of how we can assist you

The average response time is 30 minutes for an attempt to contact. OEM Priority calls average less than 15 minutes.

Digi Support will respond in the following process:

- Attempt resolution on first contact
  If the call is not closed, the technician will issue a case number for tracking and reference purposes. Case numbers are given priority when used by the customer to access additional technical support.
- The case will be escalated to a lead tech who will own the case.
- The lead tech will determine if the case warrants escalation to a Problem Report.
- Problem reports are assigned to appropriate Engineers for resolution.

2.0 Product Returns

When it is necessary to return product to Digi, a Returned Material Authorization (RMA) number is assigned to track the returned product.

2.1 Procedures for OEM Returns:

1. Contact Digi OEM Sales Administrator with request for RMA.
2. RMA is issued, appropriate action is taken, ie swap etc.
3. OEM customer sends product to Digi at customers expense with RMA number on outside of package.
4. Product is received by Digi RMA Department.
5. Product in RMA is handled by Digi according to receiving procedures.
6. Product is repaired and returned to OEM customer.

2.2 RMA Definitions

RMA 10 Return for Refurbishment - Product is restored to a like new condition, only up to the latest revision prior to a new PCB assembly or redesign. It is should be understood, that in the interest of both parties, costs may be negotiated.

RMA 11 Credit Return - Return of product for credit only.

RMA 20 Evaluation - Product is returned after standard 30 day period.

RMA 13 Product Recall - Field product is recalled to Manufacturing/Operations. Product may either be reworked or scrapped as required.

RMA 30 Advance Replacement - Within the first year of warranty, Digi will ship an equal exchange of like product overnight; at the customer's expense.

RMA 40 General Repair - Products fail in field and require repair.

RMA 50 Wrong Product Shipped - Correct part number ordered, wrong product shipped, correct product is reshipped.

RMA 60 Wrong Product Ordered - Wrong part number ordered, correct product is reshipped.

3.0 Digi Warranty Information

3.1 Digi Standard Warranty

Please see policy as stated below extracted from the literature package included with standard packaged product.

GENERAL WARRANTY POLICY

Digi International Inc. (hereafter referred to as DIGI) warrants that the Products shall conform to and perform in accordance with published technical specifications and the accompanying written materials, and shall be free of defects in materials and workmanship, for the period optima herein indicated, such warranty period commencing upon receipt of the Product.

This warranty is limited to the repair and/or replacement, at DIGI's election, of defective or non-conforming Product, and DIGI shall not be responsible for the failure of the Product to perform specified functions, or any other non-conformance caused by or attributable to: (a) any misapplications or misuse of the Product; (b) failure of Customer to adhere to any of DIGI's specifications or instructions; (c) neglect of, abuse of, or accident to, the Product; or (d) any associated or complementary equipment or software not furnished by DIGI.

Limited warranty service may be obtained by delivery the Product to DIGI in the US, or to the international distributor it was purchased through and providing proof of purchase or receipt date. Customer agrees to insure the Product or assume the risk of loss or damage in transit, to prepay shipping charges to DIGI, and to use the original shipping container or equivalent. Contact DIGI Customer Service at (612) 943-0577 in the US; in Europe, call +49 221 92052 0; in Asia, call +65 732 1318 for further information. **NOTE: WARRANTY CARD MUST BE RETURNED IN ORDER TO RECEIVE CUSTOMER AND TECHNICAL SUPPORT.**

LIMITATIONS OF LIABILITY

EXCEPT AS EXPRESSLY PROVIDED HEREIN, DIGI MAKES NO WARRANT OF ANY KIND, EXPRESSED OR IMPLIED, WITH RESPECT TO ANY EQUIPMENT, PARTS OR SERVICES PROVIDED PURSUANT TO THIS AGREEMENT, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. NEITHER DIGI OR ITS DEALER SHALL BE LIABLE FOR ANY OTHER DAMAGES, INCLUDING BUT NOT LIMITED TO DIRECT, INDIRECT, INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES, WHETHER IN AN ACTION iN CONTRACT OR TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY),

3.2 Out-of -Warranty Service

The turnaround time for out-of-warranty product is 7 days from receipt of product, this excludes transportation time to return the product.

Out-of-warranty service costs consists of parts and labor. Digi's standard service charge is $75.00 per hour. Maximum charges before product scrap vary per product and will need to be negotiated with your OEM Account Manager.

3.3 No Trouble Found (NTF's)

If more than 25% of returned product for repair is designated as 'No Trouble Found', Digi will alert the customer and provide the necessary information to jointly resolve the problem.

SECTION 3 Digi Engineering Services

1.0 Product Design

When a new product is initiated or a design modification is required, project plans and goals are established and closed loop processes are used, such that the results of each major phase of the development fulfill the goals for that phase and discrepancies are evaluated before product is released.

Digi implements the following procedures for Product Design:

- Design Documents
- Marketing Requirements Document
- Project Plan
- Design Specifications
- Preliminary Design Review
- Design Verification and Test Plan
- Internal Design Verification (Alpha Phase)
- BETA
- Final Design Review
- Product Design Release

For more information on quality and operational procedures, please ask your OEM account manager for the Digi Quality Manual.

3.0 ECO Process

Prior to releasing an ECO, the Design Engineer will issue an Engineering Change Notification (ECN) explaining the changes initiating the ECO, and the expected effectively date of the ECO.

Typically Digi will provide notice by ECN thirty (30) days prior to ECO activation.

An Engineering Change Order (ECO) documents:

- What is to be changed
- Why it is to be changed
- When it is to be changed
- How to disposition affected items:
  on order
  in process
  in the field
  returned from Customer

4.0 Assembly Revision/Part Number Change

If an assembly has an item change, i.e. quantity, part number, or location, the revision is changed.

The Design Engineer determines whether the proposed change allows the assembly to remain physically and functionally interchangeable with the current configuration.

- If INTERCHANGEABLE, it retains the same part number and its revision level is upgraded.
- If NON-INTERCHANGEABLE, a new part number shall be assigned and changes made to all its higher assembly levels.

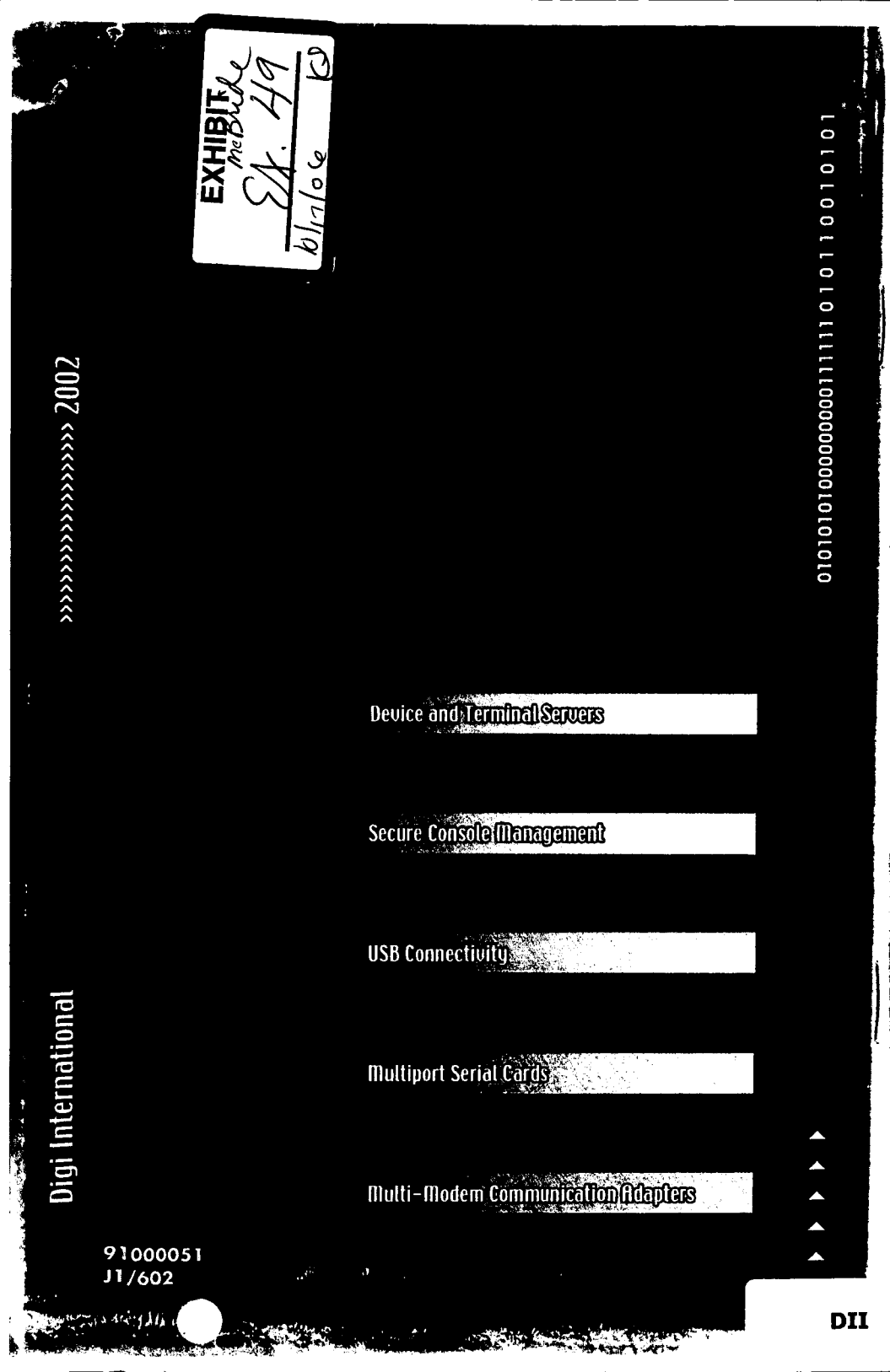
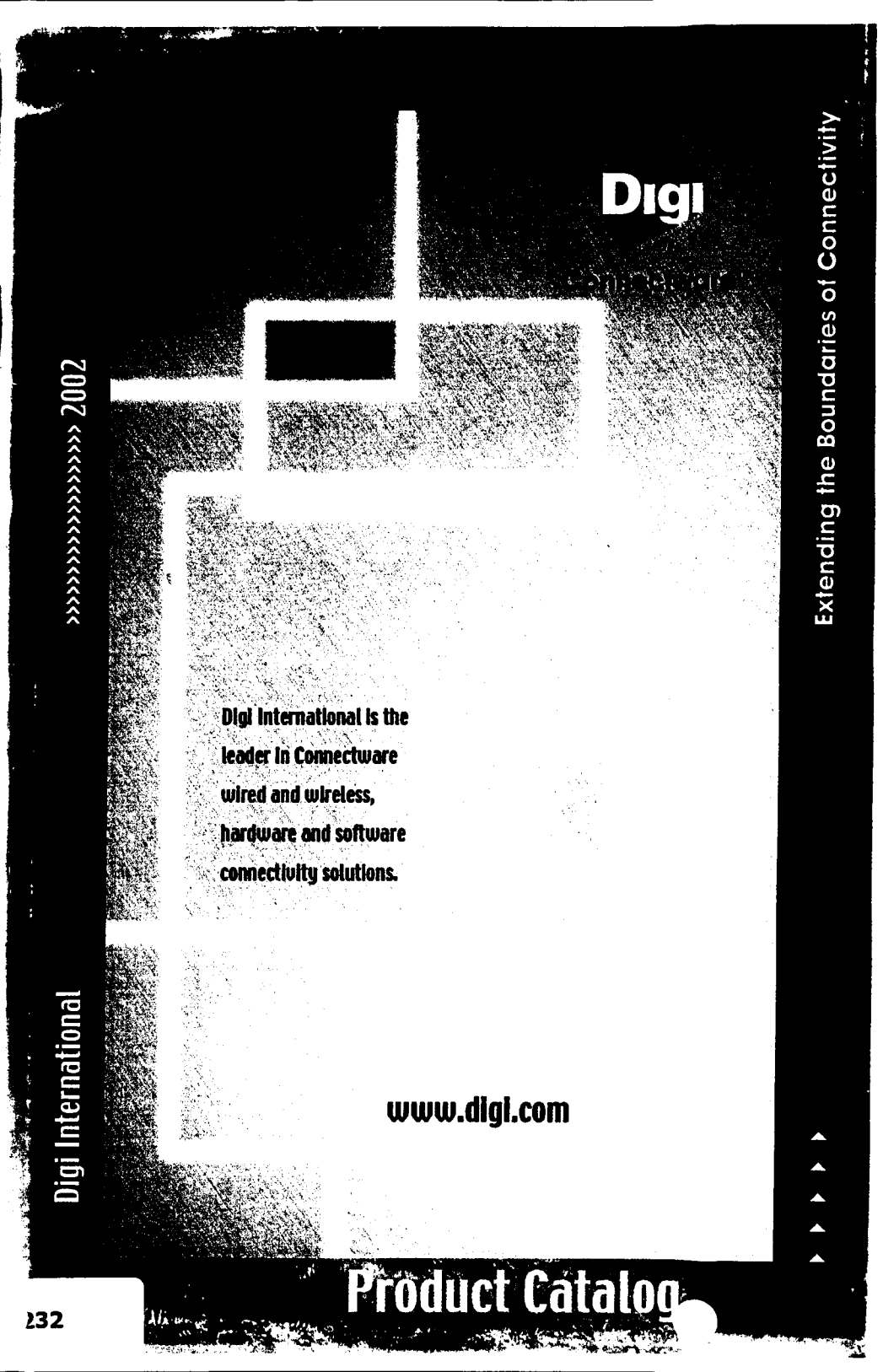


EXHIBIT
Ex. 49
Device and Terminal Servers
Secure Console Management
USB Connectivity
Multiport Serial Cards
Multi-Modem Communication Adapters
Digi International
2002
91000051
J1/602


Digi
Digi International
2002
Extending the Boundaries of Connectivity
Digi International is the leader in Connectware wired and wireless, hardware and software connectivity solutions.
www.digi.com
Product Catalog

Digi®

Connectware™

Digi International is the leader in Connectware.

Digi offers an extensive range of products including device servers, terminal servers, console management, asynchronous, Universal Serial Bus (USB) and now embedded technology that enable a virtually unlimited number of devices or users to be connected locally or remotely to LANs, multi-user systems and the internet. Designed for businesses in the retail, industrial automation, hospitality, finance and medical sectors, our product line allows our customers to automatically collect, track, measure, monitor and control the critical data they need to gain a competitive advantage to build their business.

Digi products have been tested and certified by major server and operating system vendors worldwide. With over 20 million ports shipped since 1985, Digi has been the leader in serial connectivity solutions for over 16 years.

Device and Terminal Servers	4
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Terminal Servers	11
Secure Console Management Server	12
Secure Console Management Server	14
USB Connectivity	16
USB-to-Serial Converters	18-19
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