



# Product Catalog

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Digi Passport™



Digi Connect ME®



ConnectPort™ Display



XBee-PRO™



Edgeport®



PortServer™ TS ME1



ConnectPort™ WAN VPN

**WHEN  
RELIABILITY  
MATTERS™**



**Digi International** *is a worldwide leader in device networking for business.* Since 1985, Digi has been delivering reliable products and technologies, backed by strong technical support and dedication to quality. When reliability matters, you can trust the Digi brand.

[www.digi.com](http://www.digi.com)

## +History ::

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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 550 people worldwide. We are headquartered in Minnetonka, Minnesota, a suburb of Minneapolis, with offices worldwide in the U.S., Europe and Asia.

The Makers of the Original

**DigiBoard**

## +Innovative Solutions ::

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Digi International develops reliable products and technologies that enable you to connect and manage serial, USB and other electronic devices – locally or remotely, over the network or via the web. Marketed under the Digi® and Rabbit® brands, our enterprise product offering includes embedded solutions, wireless, remote display connectivity, console servers, cameras, sensors, serial connectivity and USB expansion.

Digi strives to deliver leading edge technology to meet the demands of today's mission-critical networking environments. We are the only company today able to offer a seamless migration path to a fully integrated system-on-chip solution. Other recently introduced technologies include:

- High-speed cellular gateways
- Commercial-grade, upgradeable 3G cellular routers
- Wired and wireless interchangeable embedded modules
- Patented RealPort® COM redirector technology
- Patented RealPort® USB technology
- Intelligent console server technology
- Cost-effective, full-featured development kits

Our custom integration options, as well as mass configuration, remote monitoring and diagnostics utilities, ensure that even the largest deployments run smoothly. The bottom line is this: we can solve your networking challenges so that you can focus on running your business more efficiently and cost-effectively.

# Quality and Availability Make a Difference

## +Worldwide Availability and Compatibility ::

Digi products are available through a global network of distributors, systems integrators, Value Added Resellers (VARs) and Original Equipment Manufacturers (OEMs). You can purchase Digi solutions from 180 partners in more than 65 countries worldwide – you won't find another hardware provider with greater global reach. Our products hold many international certifications, so you can be assured of their reliability, safety and worldwide compatibility.

Digi has been certified to conform to the ISO 9001 quality management system for over 12 years. We are also committed to complying with the requirements of all applicable environmental legislation and regulations, including the restriction of hazardous substances in our products, to ensure that we meet the expectations of our customers, employees and the communities in which our products are manufactured, marketed and used.

Digi offers GSA pricing (contract number GSA GS-35F-0351J) for U.S. federal government partners and end users. The Digi GSA Online Store makes it easier than ever to procure products for your government projects.

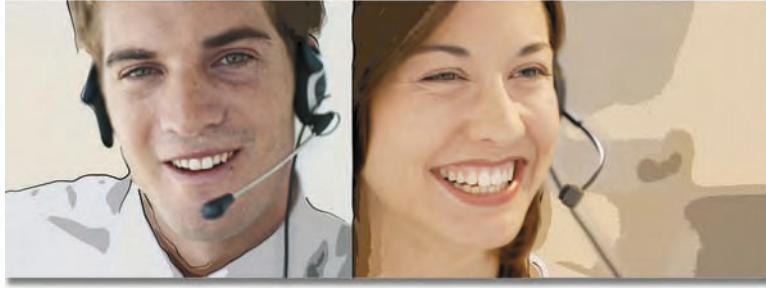
All of this translates to added convenience for you, no matter where your offices are located.



Certified to  
ISO 9001:2000



TUV Rheinland  
of North America



## + **First Rate Technical Support** ::

***When you own a Digi solution, world-class technical support is just a phone call or click away.***

We know how frustrating it can be to call a company's technical support line and not be able to speak to someone. You can always reach a knowledgeable Digi Support Engineer by phone or email Monday through Friday, 7:00 a.m. to 5:30 p.m. (CST) in the U.S., 8:00 a.m. to 5:00 p.m. (CET) in Europe, and 9:00 a.m. to 5:30 p.m. (GSM+8) in Asia. We also offer priority support and enhanced warranty packages for your mission-critical applications that require 24-hour technical support, seven days a week.

We stand by our products with a five-year warranty on all hardware, ensuring that your solution is always functioning to keep your application running smoothly. We also offer annual support agreements tailored to meet the needs of our mission-critical customers and others looking for enhanced support offerings. Customers may choose from three plans:

- **Advance Replacement**
- **12x5 Priority Support with Advanced Replacement**
- **24x7x365 Emergency Assistance with Advanced Replacement**

We recognize that our customers often prefer to take a self-service approach to technical support, so we have made it easier than ever to find the product information you need on our website. From the searchable Knowledge Base, to the peer-to-peer Support Forum, a wealth of information is at your fingertips.

With our world-class technical support, five-year warranty, support agreements and comprehensive online tools, it's easy to see why our customers consistently rank Digi as providing superior support as compared to other companies in our industry.

\* For customers outside North America, please check with your reseller for available support options.



## +Digi Listens ::

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In the Americas, our skilled sales team is committed to answering every phone call during business hours (8:00 a.m. - 5:00 p.m. CST). Voicemail left after hours will be returned the next business day. You may also participate in Live Chat with a Digi sales representative during business hours, and we will respond to you within 30 seconds of initiating the session. We are also committed to responding to your email within one business day.

## +Our Customers ::

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Our willingness to customize hardware, firmware, software and packaging based on specific customer requirements is a key factor in why many Fortune 500 companies choose Digi. From device manufacturers to government agencies to turnkey solution providers, customers around the world rely on Digi for our reliable, high performance connectivity solutions. They also know that Digi is a trusted, recognized brand with over 22 years of experience.

Digi products can be found in self-checkout systems, traffic intersections, fast food restaurants, ATMs, airport and hotel check-ins, building entrance control panels, and many other places you may encounter in your daily routine.

Customers choose Digi when reliability matters.





## + Industry-Specific Focus ::

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By approaching our customers from an industry-specific perspective, we are able to find better solutions to common industry problems. This enables you to improve your business' efficiency, saving valuable time and money that would otherwise be spent on solving critical networking challenges.

Our website has an area dedicated to specific industry segments including:

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

We offer specific market application guides and newsletters with relevant news and events, application profiles and product spotlights. Of course, as we discover more industries that benefit from our products and technologies we will provide additional applications and information.

See how Digi solutions are used to solve real-world connectivity problems in our Industry-Specific Applications section (page 166).

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# Serial Servers

## Serial-to-Ethernet

Digi serial servers are configurable, easy-to-use network devices that convert serial data into network data, providing the flexibility needed to meet a wide range of demanding application requirements. They consist of all the vital components required to provide full network connectivity to any device with a serial port: an optimized and robust TCP/IP protocol stack, remote management capabilities, and a variety of serial and network interface options. In addition to providing TCP, UDP, SSH and SSL connectivity for network-aware applications, Digi's patented RealPort® technology delivers a fully transparent COM or TTY connection without any need for modifications to the existing software or hardware components in your application.

Digi serial server technology combines the inherent benefits of data networking with proven asynchronous connectivity. It transforms a previously isolated device with a serial port into a fully network-enabled component, and also migrates expensive dial-on-demand or "nailed up" phone line solutions to work over local or wide area networks. The benefits are clear: immediate access to information, improved flexibility and a significant reduction of operating costs.

With Digi serial servers, you can directly access, manage and control devices through the network. 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.

### What do you need to do?

- + Add simple, cost-effective network connectivity to one or more serial devices ..... **Digi One SP, Digi Connect SP, PortServer TS**
- + Add cost-effective network connectivity to one or more RS-232/422/485 devices ..... **PortServer TS MEI**
- + Ethernet-enable a serial device in extended temperature or hazardous environments ... **PortServer TS H MEI, PortServer TS H<sup>cc</sup> MEI, PortServer TS Haz MEI**
- + Integrate an RS-232/422/485 serial device to an 802.11b wireless network ..... **PortServer TS W MEI, Digi Connect Wi-SP**
- + Migrate industrial devices from basic serial-to-Ethernet functionality to advanced industrial protocol conversion, even in hazardous environments..... **Digi One IAP, Digi One IAP Haz**
- + Gain universal serial to IP network connectivity with versatile powering options including powered Ethernet and powered serial ..... **PortServer TS P MEI**
- + Add both IP networking and phone line dial-up connectivity for remote access to serial and Ethernet devices..... **PortServer TS M MEI**
- + Add network connectivity to Model 170 traffic signal controller equipment..... **Digi Connect N2S-170**
- + Provide extended electrical isolation to connected serial devices for added safety ..... **Digi Connect ES**
- + Utilize an off-the-shelf development platform for easy embedded networking ..... **Digi Connect SP**

## + Serial Servers – Serial-to-Ethernet

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	1 to 4 Ports Standard	PortServer TS 1/2/4	Multi-Electrical Interface	PortServer TS 1/2/4 MEI	PortServer TS H MEI	PortServer TS H <sup>cc</sup> MEI	PortServer TS Haz MEI	PortServer TS W MEI	PortServer TS M MEI
Serial Ports	1/2/4		1/2/4	1/2/4	1/2/4	1/2/4	1/2/4	1/3	
Serial Connector	RJ-45		RJ-45	RJ-45	RJ-45	RJ-45	RJ-45	RJ-45	
Serial Type	RS-232		RS-232/ 422/485	RS-232/ 422/485	RS-232/ 422/485	RS-232/ 422/485	RS-232/ 422/485	RS-232/ 422/485	
10/100Base-T	•		•	•	•	•	•	•	
Baud	230 Kbps		230 Kbps	230 Kbps	230 Kbps	230 Kbps	230 Kbps	230 Kbps	
DHCP, RARP, Static IP, ARP-Ping	•		•	•	•	•	•	•	
TCP/UDP	•		•	•	•	•	•	•	
Modbus/TCP	•		•	•	•	•	•	•	
Telnet/Reverse Telnet	•		•	•	•	•	•	•	
HTTP	•		•	•	•	•	•	•	
HTTPS	•		•	•	•	•	•	•	
SSHv2 Server, SSL/TLS	•		•	•	•	•	•	•	
SNMP	•		•	•	•	•	•	•	
Port Buffering	•		•	•	•	•	•	•	
Modem Emulation	•		•	•	•	•	•	•	
DIN Rail	• (optional)		• (optional)	• (optional)	• (optional)	• (optional)	• (optional)	• (optional)	
9-30VDC	•		•	•	•	•	•	•	
COM/TTY Driver	RealPort with Encryption		RealPort with Encryption	RealPort with Encryption	RealPort with Encryption	RealPort with Encryption	RealPort with Encryption	RealPort with Encryption	
Special Features				• Extended temp (-35° C to 74° C)	• Extended temp (-35° C to 74° C) • Conformal coated circuit board • NEMA TS 2	• Class 1, Div 2 • Extended temp (-35° C to 74° C) • Conformal coated circuit board	• 802.11b wireless	• Internal modem	

External Serial Servers Features Chart

PortServer TS P MEI	Digi One SP	Customizable	Digi Connect SP	Digi Connect Wi-SP	Digi Connect N25-170	Industrial	Digi One IAP	Digi One IAP Haz
1/2/4	1		1	1/2	N/A		1	1
DB-9	DB-9		DB-9	DB-9	N/A		DB-9 and screw terminals	DB-9 and screw terminals
RS-232/422/485	RS-232/422/485		RS-232 or RS-232/422/485	RS-232/422/485	N/A		RS-232/422/485	RS-232/422/485
•	•		•	•	•		•	•
230 Kbps	230 Kbps		230 Kbps	230 Kbps	N/A		230 Kbps	230 Kbps
•	•		•	•	•		•	•
•	•		•	•	•		•	•
•							•	•
•	•		•	•	•		•	•
•	•		•	•	•		•	•
•			•	•	•			
•			•	•	•			
•			•	•	•		•	•
• (optional)							•	•
•	•		•	•			•	•
RealPort with Encryption	RealPort		RealPort	RealPort with Encryption	RealPort		RealPort	RealPort
<ul style="list-style-type: none"> <li>• Powered serial</li> <li>• Powered Ethernet</li> </ul>			<ul style="list-style-type: none"> <li>• IPv6 ready</li> <li>• Customization options</li> </ul>	<ul style="list-style-type: none"> <li>• 802.11b wireless; WPA2/802.11i wireless security</li> </ul>	<ul style="list-style-type: none"> <li>• Ethernet network controller</li> <li>• Designed for Model 170 traffic signal controller equipment</li> </ul>		<ul style="list-style-type: none"> <li>• Class 1, Div 2</li> </ul>	<ul style="list-style-type: none"> <li>• Class 1, Div 2</li> <li>• Extended temp (-35° C to 74° C)</li> <li>• Conformal coated circuit board</li> </ul>

	Industrial	Digi One IA	Digi One SP IA	8 or More Ports	PortServer TS 8/16 Family	EtherLite	Digi Connect ES
Serial Ports		1	1		8/16	2/8/ 16/32	4/8/16
Serial Connector		DB-9 and screw terminals	DB-9		RJ-45	RJ-45	RJ-45
Serial Type		RS-232/ 422/485	RS-232/ 422/485		RS-232 or RS-232/ 422/485	RS-232/ 422/485 or RS-422/485	RS-232
10/100Base-T		•	•		•	•	•
Baud		230 Kbps	230 Kbps		230 Kbps	115 Kbps	230 Kbps
DHCP, RARP, Static IP, ARP-Ping		•	•		•	• (static IP or bootp only)	•
TCP/UDP		•	•		•		•
Modbus/TCP		•	•				
Telnet/Reverse Telnet		•	•		•		•
HTTP		•	•		•		•
HTTPS		•			•		•
SSHv2 Server, SSL/TLS		•			•		•
SNMP		•			•		•
Port Buffering							
Modem Emulation		•	•		•		•
DIN Rail		•	• (via kit)				
9-30VDC		•	•				
COM/TTY Driver		RealPort with Encryption	RealPort		RealPort with Encryption	RealPort with Encryption	RealPort with Encryption
Special Features		<ul style="list-style-type: none"> <li>• Pass-through port</li> <li>• Industrial protocol bridging</li> <li>• Class 1, Div 2</li> </ul>	<ul style="list-style-type: none"> <li>• DIN rail and wall mount kit</li> </ul>		<ul style="list-style-type: none"> <li>• 48VDC models</li> </ul>		<ul style="list-style-type: none"> <li>• Galvanic port isolation</li> <li>• Ethernet switch on 8/16-port models</li> </ul>

External Serial Servers Features Chart



Serial-to-Ethernet	Multi-Electrical Interface	<b>PortServer TS 1/2/4</b> 	<b>PortServer TS 1/2/4 MEI</b> 	<b>PortServer TS 1/2/4 H MEI</b> 
	Multi-Electrical Interface	<b>PortServer TS 1/2/4 H<sup>cc</sup> MEI</b> 	<b>PortServer TS Haz MEI</b> 	<b>PortServer TS 1/2/4 W MEI</b> 
	Multi-Electrical Interface	<b>PortServer TS 1/3 M MEI</b> 	<b>PortServer TS 1/2/4 P MEI</b> 	<b>Digi One SP</b> 
	Customizable	<b>Digi Connect SP</b> 	<b>Digi Connect Wi-SP</b> 	<b>Digi Connect N2S-170</b> 

Measurements:    inch  
                           (cm)

Industrial	<b>Digi One IA</b>		<b>Digi One IAP</b>		<b>Digi One IAP Haz</b>		
	<b>Digi One SP IA</b>		<b>PortServer TS 8</b>		<b>PortServer TS 16</b>		
Industrial			8 or More Ports				
Serial-to-Ethernet	<b>PortServer TS 16 Rack, PortServer TS 16 8/16 MEI</b>		<b>EtherLite 32</b>		<b>EtherLite 160</b>		
	<b>EtherLite 2</b>		<b>Digi Connect ES</b>				
8 or More Ports							

Measurements:    inch  
                          (cm)

Digi's patented RealPort COM/TTY redirector is a standard feature of our serial servers. Its comprehensive OS support includes:

- Microsoft Windows Server 2003
- Microsoft Windows Vista
- Microsoft Windows XP
- Microsoft Windows 2000
- Microsoft Windows 98
- Microsoft Windows Me
- Microsoft Windows NT
- SCO Open Server and UnixWare
- Linux
- AIX
- True 64
- Sun Solaris SPARC and Intel
- HP-UX
- NCR UNIX MP-RAS

See page 39 for more information about RealPort.

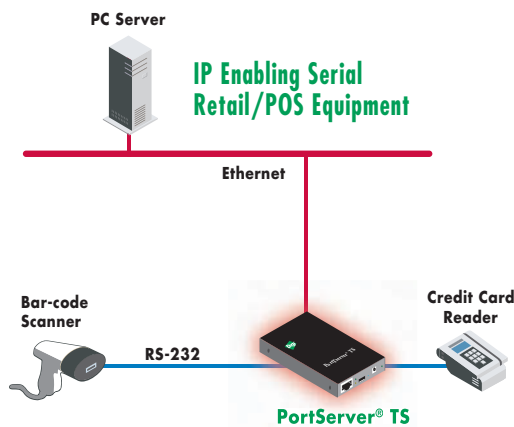
# PortServer® TS 1/2/4 :: Standard Serial Servers

**Overview** :: The PortServer TS 1/2/4 family delivers simple and reliable serial-to-Ethernet connectivity in a common serial pinout (also shared with the PortServer TS 8/16). It addresses the growing need to connect individual serial devices to the network over industry standard Ethernet. Power monitoring and security features make these devices ideal for large deployments and especially replicated or remote installations.



## + Features ::

- Easy configuration using installation CD
- Digi's patented RealPort® with encryption and authentication 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
- SNMP for easy network management
- Reverse SSH for direct SSH socket connectivity to serial ports
- NIST FIPS-197 certified (secure AES)
- PPP for dial-up network access to serial devices and remote networks
- Easy configuration through web interface (HTTP/HTTPS)
- Modem emulation allows support for devices designed only for modem communications
- Tunable for low latency or optimized throughput
- 5-year warranty

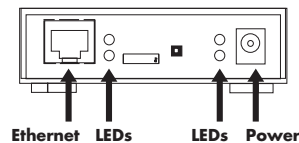


See page 36 for 8- and 16-port versions.

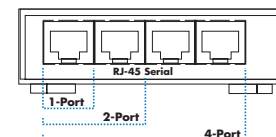
## + Specifications ::

- 10/100Base-T Ethernet support
- 1, 2 or 4 serial ports (RJ-45)
- RS-232
- Baud rates up to 230 Kbps
- Full modem and hardware flow control
- Modem emulation
- TCP/UDP Socket Services
- Telnet and Reverse Telnet
- DHCP/RARP/ARP-Ping for IP address assignment
- PPP
- SNMP
- SSH server for secure management of the PortServer TS
- SSH server socket support for secure direct connections to serial ports
- SSL/TLS
- HTTP configuration
- Patented RealPort technology for COM and TTY ports
- 9-30VDC power supply included
- RFC 2217 support
- LED status for link and power
- DIN rail and mounting options

PortServer TS Family - Front



PortServer TS Family - Back



## Part Numbers ::

North America International

**Model**

PortServer TS 1 – 1 port	70002041	70002042
PortServer TS 2 – 2 ports	70002043	70002044
PortServer TS 4 – 4 ports	70002045	70002046

All cables and accessories: pg. 158-159.

# PortServer® TS 1/2/4 MEI :: Multi-Electrical Interface Serial Servers

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**Overview** :: PortServer TS MEI (Multi-Electrical Interface), offers the same features of the PortServer TS, but adds the capability to support RS-232/422/485 serial devices. Available in one-, two- and four-port models, it is ideal for installations involving specialized devices that require these different cabling options.

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## + Features ::

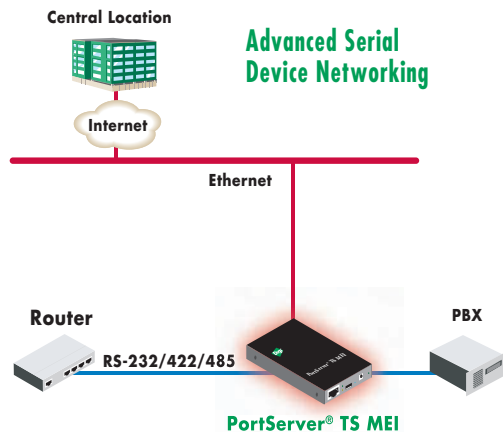


- Switch selectable RS-232/422/485 for simple interfacing to virtually any type of serial device
- Digi's patented RealPort® with encryption and authentication for COM or TTY port control and management
- Management and diagnostic utility for simple and efficient device monitoring and troubleshooting
- Modem emulation allows the serial server to function as a modem
- NIST FIPS-197-certified (secure AES)
- Secure communication via SSHv2 and SSL/TLS
- Port buffering for data capture
- Easy configuration through web browser interface (HTTP/HTTPS)
- SNMP for easy network management
- PPP for dial-up network access to serial devices and remote networks
- Tunable for low latency or optimized throughput
- 5-year warranty

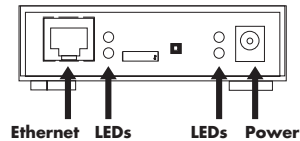
## + Specifications ::



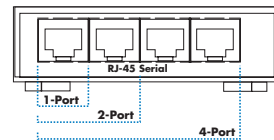
- 10/100Base-T Ethernet support
- 1, 2 or 4 serial ports (RJ-45)
- Switch selectable RS-232/422/485
- Baud rates up to 230 Kbps
- TCP/UDP/Telnet Socket Services
- Patented RealPort with encryption and authentication
- 9-30VDC input
- Modem emulation
- SNMP (read/write)
- PPP
- SSHv2, SSL/TLS
- Port buffering
- Modbus to Modbus/TCP conversion
- HTTP/HTTPS
- DHCP/RARP/ARP-Ping for IP address assignment
- RFC 2217 support
- DIN rail and mounting options



PortServer TS MEI Family - Front



PortServer TS MEI Family - Back



## Part Numbers ::

North America International

### Model

PortServer TS 1 MEI – 1 port	70001805	70001832
PortServer TS 2 MEI – 2 ports	70001806	70001833
PortServer TS 4 MEI – 4 ports	70001807	70001834

All cables and accessories: pg. 158-159.

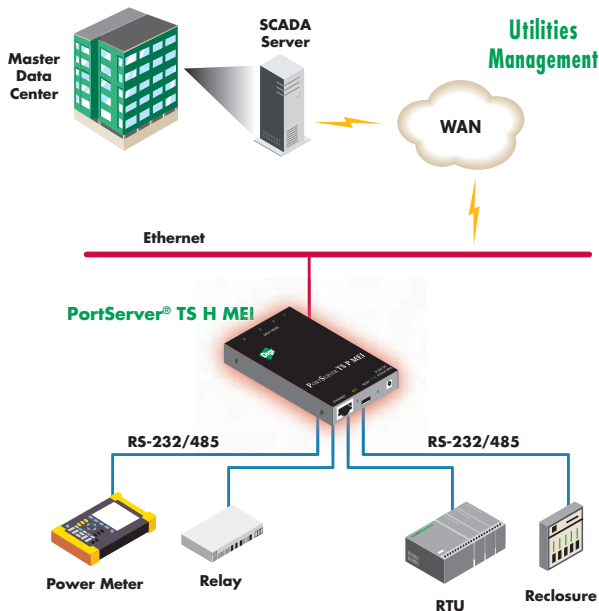
# PortServer® TS H MEI :: Multi-Electrical Interface Serial Servers (Hardened)

**Overview** :: PortServer TS H MEI is designed specifically for traffic management, pipelines or any remote application requiring a hardened serial-to-Ethernet solution that can withstand extreme temperatures (-35° C to 74° C). Available in one-, two-, and four-port versions, PortServer TS H MEI makes it easy to network-enable and remotely manage fuel tank monitors, flow meters, telemetry equipment, heating and cooling systems, or any RS-232/422/485 serial device.



## + Features ::

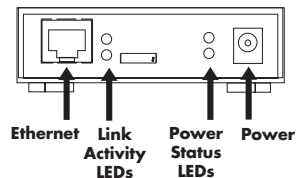
- Robust, hardened model with extended temperature range of -35° C to 74° C (-31° F to 165° F)
- RS-232/422/485 switch selectable on Port 1, RS-232 on all other ports
- Digi's patented RealPort® with encryption and authentication for COM or TTY port control and management
- Monitoring and diagnostic utility for simple and efficient device monitoring and troubleshooting
- NIST FIPS-197 certified (secure AES)
- Secure communication via SSHv2 and SSL/TLS
- Port buffering for data capture
- Easy configuration through web browser interface (HTTP)
- Tunable for low latency or optimized throughput
- 9-30VDC power with bare-wire "pigtail" for direct connection
- 5-year warranty



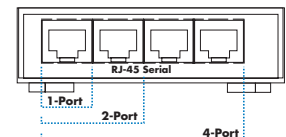
## + Specifications ::

- 10/100Base-T Ethernet support
- 1, 2 or 4 serial ports (RJ-45)
- Switch selectable RS-232/422/485
- Baud rates up to 230 Kbps
- TCP/UDP/Telnet Socket Services
- Patented RealPort with encryption and authentication
- 9-30VDC input
- Locking barrel power connector; hardened power supply sold separately
- Modem emulation
- SNMP (read/write)
- PPP
- SSHv2
- Port buffering
- Modbus to Modbus/TCP conversion
- HTTP
- Digi Port Authority – Remote management diagnostics and auto-discovery tool
- DHCP/RARP/ARP-Ping for IP address assignment
- RFC 2217 support
- DIN rail and mounting options

PortServer TS H MEI - Front



PortServer TS H MEI - Back



## Part Numbers ::

North America International

### Model

PortServer TS 1 H MEI - 1 port	70001917	70001917
PortServer TS 2 H MEI - 2 ports	70001918	70001918
PortServer TS 4 H MEI - 4 ports	70001919	70001919
12VDC Extended Temperature Power Supply w/ Locking Barrel Connector	76000752	76000752

All cables and accessories: pg. 158-159.

# PortServer® TS H<sup>cc</sup> MEI :: Multi-Electrical Interface Serial Servers (Conformal Coated)

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**Overview ::** The PortServer TS H<sup>cc</sup> MEI family of serial servers delivers high-performance serial-to-Ethernet connectivity. It is designed with a conformal coated circuit board for environments that require extended temperatures, such as traffic management installations, utility plants and pipelines. Available in one-, two-, and four-port versions, PortServer TS H<sup>cc</sup> MEI makes it easy to network-enable and remotely manage variable message signs, loop detectors, ramp meters or any RS-232/422/485 serial device.

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## + Features ::

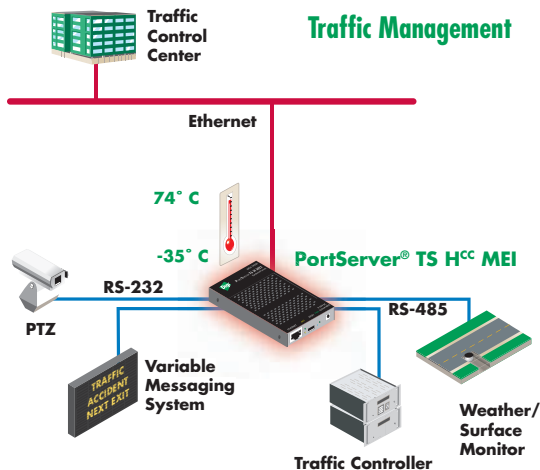


- Robust, hardened model with extended temperature range of -35° C to 74° C (-31° F to 165° F)
- NEMA TS 2 certified
- Conformal coated circuit board
- Ships in "Latency Mode and TCP Keepalive" setting
- RS-232/422/485 switch selectable on all ports
- Digi's patented RealPort® with encryption and authentication for COM or TTY port control and management
- Monitoring and diagnostic utility for simple and efficient device monitoring and troubleshooting
- NIST FIPS-197 certified (secure AES)
- Data security via SSHv2 and SSL/TLS
- Port buffering for data capture
- Easy configuration through web interface (HTTP)
- Tunable for low latency or optimized throughput
- 9-30VDC power with screw terminal connector
- 5-year warranty

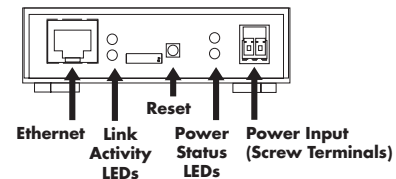
## + Specifications ::



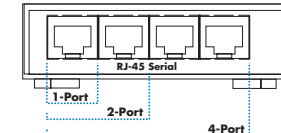
- Conformal coated circuit board
- 10/100Base-T Ethernet support
- 1, 2 or 4 serial ports (RJ-45)
- Switch selectable RS-232/422/485
- Baud rates up to 230 Kbps
- TCP/UDP/Telnet Socket Services
- Patented RealPort with encryption and authentication
- 9-30VDC input
- Screw terminal power connector; no power supply included
- Modem emulation
- SNMP (read/write)
- PPP
- SSHv2
- Port buffering
- Modbus to Modbus/TCP conversion
- HTTP
- Digi Port Authority – Remote management diagnostics and auto-discovery tool
- DHCP/RARP/ARP-Ping for IP address assignment
- RFC 2217 support
- DIN rail and mounting options



PortServer TS H<sup>cc</sup> MEI - Front



PortServer TS H<sup>cc</sup> MEI - Back



## Part Numbers ::

North America International

Model	North America	International
PortServer TS 1 H <sup>cc</sup> MEI - 1 port	70002038	70002038
PortServer TS 2 H <sup>cc</sup> MEI - 2 ports	70002039	70002039
PortServer TS 4 H <sup>cc</sup> MEI - 4 ports	70002040	70002040
12VDC, 100-240VAC Extended Temperature Power Supply (no plug)	76000736	76000736

All cables and accessories: pg. 158-159.

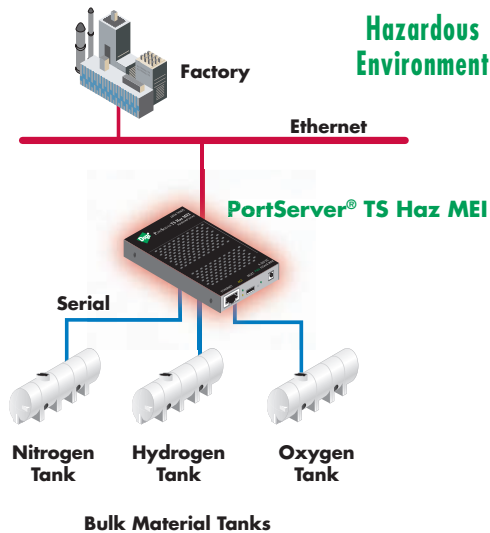
# PortServer® TS Haz MEI :: Multi-Electrical Interface Serial Servers (Hazardous)

**Overview** :: The PortServer TS Haz MEI makes it easy to connect one to four serial devices to your network, even in applications where environmental hazards demand extended safety features and operating tolerances. With a conformal coated circuit board, extended temperature tolerance and the ability to safely perform in flammable environments (Class 1, Division 2 certified), it is the ideal device connectivity solution for applications in factory automation and utility management (gas, electric and water).



## + Features ::

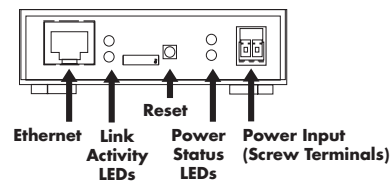
- Robust, hardened model with extended temperature range of -35° C to 74° C (-31° F to 165° F)
- Class 1, Division 2 rated
- Conformal coated circuit board
- Ships in "Latency Mode and TCP Keepalive" setting
- RS-232/422/485 switch selectable on all ports
- Digi's patented RealPort® with encryption and authentication for COM or TTY port control and management
- Monitoring and diagnostic utility for simple and efficient device monitoring and troubleshooting
- Data security via SSHv2 and SSL/TLS
- Port buffering for data capture
- Easy configuration through web interface (HTTP)
- Tunable for low latency or optimized throughput
- 9-30VDC power with screw terminal connector
- 5-year warranty



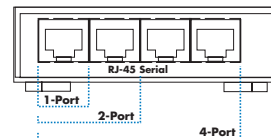
## + Specifications ::

- Conformal coated circuit board
- 10/100Base-T Ethernet support
- 1, 2 or 4 serial ports (RJ-45)
- Switch selectable RS-232/422/485
- Baud rates up to 230 Kbps
- TCP/UDP/Telnet Socket Services
- Patented RealPort with encryption and authentication
- 9-30VDC input
- Screw terminal power connector; no power supply included
- Modem emulation
- SNMP (read/write)
- PPP
- SSHv2
- Port buffering
- Modbus to Modbus/TCP conversion
- HTTP
- Digi Port Authority – Remote management diagnostics and auto-discovery tool
- DHCP/RARP/ARP-Ping for IP address assignment
- RFC 2217 support
- DIN rail and mounting options

PortServer TS Haz MEI - Front



PortServer TS Haz MEI - Back



## Part Numbers ::

North America International

### Model

PortServer TS 1 Haz MEI - 1 port	70002318	70002318
PortServer TS 2 Haz MEI - 2 ports	70002319	70002319
PortServer TS 4 Haz MEI - 4 ports	70002320	70002320
12VDC, 100-240VAC Extended Temperature Power Supply (no plug)	76000736	76000736

All cables and accessories: pg. 158-159.

# PortServer® TS W MEI :: Multi-Electrical Interface Serial Servers (Wireless)

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**Overview** :: PortServer TS W MEI is designed to easily integrate any RS-232/422/485 serial device to an 802.11b wireless Ethernet network. It is ideal for use in environments where wired LANs are not feasible or where serial devices are periodically moved.

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## + Features ::

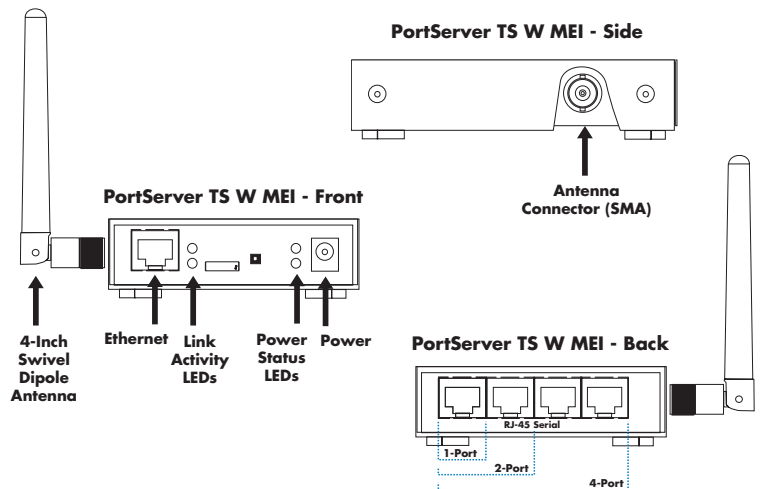
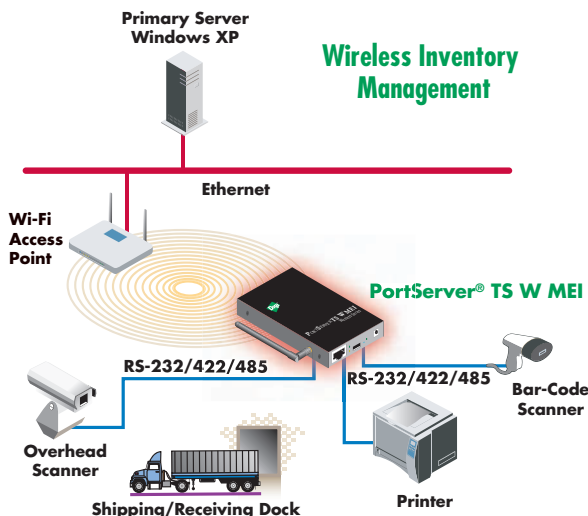


- Easily connect serial devices to an 802.11b wireless Ethernet network interface
- Digi's patented RealPort® with encryption and authentication for COM or TTY port control and management
- External antenna connector (SMA) can also be used with third party antenna for extended range/performance
- Includes four-inch 50 ohm swivel dipole antenna
- Switch selectable RS-232/422/485 for simple interfacing to any type of serial device
- Monitoring and diagnostics utility for simple and efficient device monitoring and troubleshooting
- NIST FIPS-197 certified (secure AES)
- Data security via SSHv2, and SSL/TLS
- Wired Equivalent Privacy (WEP)
- Easy configuration through web browser interface (HTTP)
- Tunable for low latency or optimized throughput
- 5-year warranty

## + Specifications ::



- 10/100Base-T Ethernet support
- 1, 2 or 4 serial ports (RJ-45)
- Switch selectable RS-232/422/485
- Baud rates up to 115.2 Kbps
- 802.11b wireless radio
- WEP supporting 64-bit and 128-bit encryption
- TCP/UDP/Telnet Socket Services
- Patented RealPort with encryption and authentication
- RFC 2217 support
- 9-30VDC input
- Modem emulation
- SNMP (read/write)
- PPP
- SSHv2
- Port buffering
- Tunable latency
- Modbus to Modbus/TCP conversion
- DIN rail and mounting options



## Part Numbers ::

North America International

Model	North America	International
PortServer TS 1 W MEI – 1 port	70001954	70001955
PortServer TS 2 W MEI – 2 ports	70001956	70001957
PortServer TS 4 W MEI – 4 ports	70001958	70001959

All cables and accessories: pg. 158-159.



# PortServer® TS M MEI :: Multi-Electrical Interface Serial Servers (Modem)

**Overview** :: PortServer TS M MEI offers Ethernet and RS-232/422/485 serial connections, with the added flexibility of an internal modem. The one- and three-port serial servers are ideal for applications requiring both IP networking and standard phone line dial-up connectivity for remote access to serial devices.

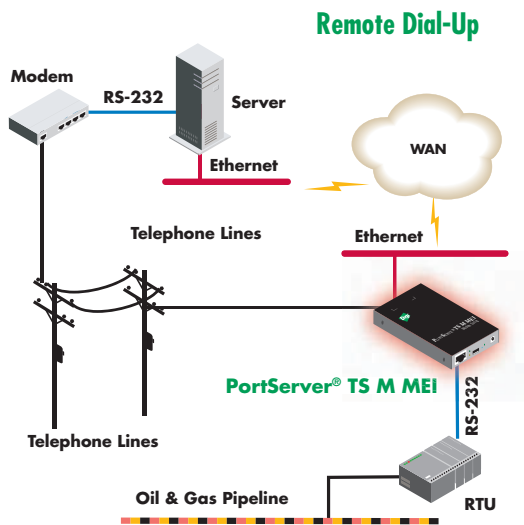


## + Features ::

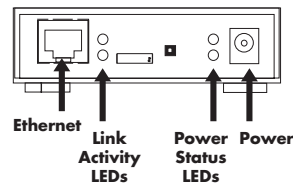
- Easily connect to remote networks and devices
- Internal V.92 modem
- Switch selectable RS-232/422/485 for simple interfacing to any type of serial device
- Digi's patented RealPort® with encryption and authentication for COM or TTY port control and management
- NIST FIPS-197 certified (secure AES)
- PPP and SSH for creating secure IP network over serial connection
- Easy IP assignment via DHCP, RARP, ARP-Ping or Digi-provided tools (included)
- Tunable for low latency or optimized throughput
- 5-year warranty

## + Specifications ::

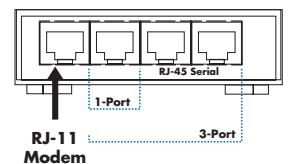
- 10/100Base-T Ethernet support
- 1 or 3 serial ports (RJ-45)
- Switch selectable RS-232/422/485
- RJ-45 modem serial port connection
- Baud rates up to 230 Kbps (serial ports)
- Internal v.90/v.92 modem
- Full modem and hardware flow control
- DHCP/RARP/ARP-Ping for IP address assignment
- Low latency
- TCP/UDP Socket Services
- Telnet and Reverse Telnet
- Patented RealPort technology with encryption and authentication
- RFC 2217 support
- PPP
- SSHv2
- Port buffering
- Modbus/TCP protocol conversion
- HTTP/HTTPS
- SNMPv1 (read/write)
- DIN rail and mounting options



PortServer TS M MEI - Front



PortServer TS M MEI - Back



## Part Numbers ::

North America International

### Model

PortServer TS 1 M MEI – 1 port  
PortServer TS 3 M MEI – 3 ports

70001898  
70001899

70001985  
70001986

All cables and accessories: pg. 158-159.

# PortServer® TS P MEI :: Multi-Electrical Interface Serial Servers (Power)

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**Overview** :: The PortServer TS P MEI Power Series is designed for universal, high-performance serial-to-Ethernet connectivity with versatile powering options. It is ideal for RS-232/422/485 applications where traditional power alternatives such as powered Ethernet (802.3af) and powered serial are required. PortServer TS P MEI can be powered by an external device via the serial port (power in) or can power an external device via the serial port (power out) for added flexibility.

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## + Features ::

- Supports powered Ethernet (802.3af) or powered serial for versatile and redundant powering options
- Easily network-enable multiple serial devices
- RS-232/422/485 for simple interfacing to virtually any type of serial device
- Digi's patented RealPort® with encryption and authentication for COM or TTY port control and management
- Management and diagnostic utility for simple and efficient device monitoring and troubleshooting
- Modem emulation for easy integration and replacement of modems
- Secure communication via SSHv2
- Port buffering for data capture
- Easy configuration through web browser interface
- SNMP for easy network management
- Tunable for low latency or optimized throughput
- 5-year warranty

## + Specifications ::

- 10/100Base-T Ethernet support
- 1, 2 or 4 serial ports
- Switch selectable RS-232/422/485
- Baud rates up to 230 Kbps
- Full modem and hardware flow control
- TCP/UDP Socket Services
- Telnet, SSHv2
- 802.3af powered Ethernet (end- and mid-span support)
- SNMP (read/write)
- PPP
- Tunable latency
- Modbus to Modbus/TCP conversion
- HTTP
- DHCP/RARP/ARP-Ping for IP address assignment
- RFC 2217 support

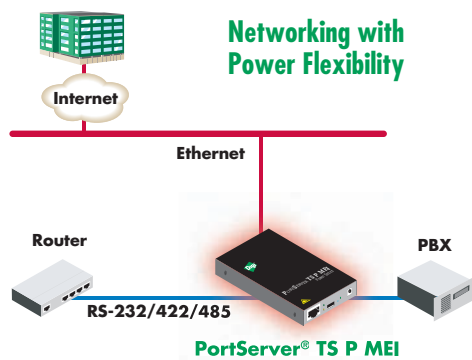
### Serial Power Input

- DC input connector, 9-30VDC, 525 mA max
- Serial Port 1, Pin 1 (RI), 9-30VDC, 525 mA max

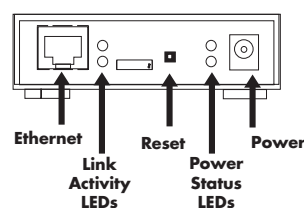
### Serial Power Output

- Available on all serial ports
- 1 watt available power with selectable voltage level
- Pin 1 (RI) 5VDC up to 200 mA max
- Pin 9 (DTR) 9VDC up to 100 mA max

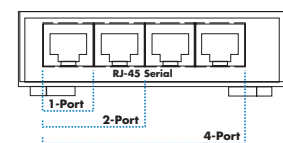
### Central Location



### PortServer TS P MEI - Front



### PortServer TS P MEI - Back



## Part Numbers ::

	North America	North America	International
	(end-/mid-span PoE)	(mid-span PoE)	(end-/mid-span PoE)
Model			
PortServer TS 1 P MEI – 1 port	70002314	70001988	70001991
PortServer TS 2 P MEI – 2 ports	70002315	70001989	70001992
PortServer TS 4 P MEI – 4 ports	70002316	70001990	70001993

All cables and accessories: pg. 158-159.

# Digi One® SP :: Multi-Electrical Interface Serial Servers

**Overview** :: The Digi One SP enables easy Ethernet connectivity for any device with a serial port. Its compact design delivers cost-effective performance and capability in one of the smallest form factors available. It is ideal for applications requiring simple and easy-to-use data communications.

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## + Features ::



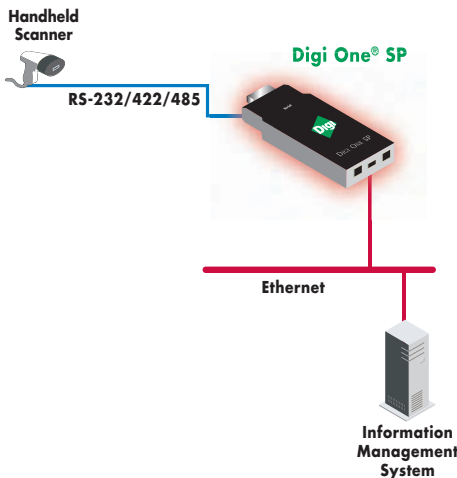
- Easy configuration using installation CD
- Compact form factor – only 3.70 in (9.04 cm) in length
- Digi's patented RealPort® redirector for COM or TTY port control and management
- TCP/UDP Socket Services for broad device connectivity and application use
- Auto-connect the serial device to a networked 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 serial interface supports any type of serial device
- Modem emulation allows support for devices designed only for modem communications
- 5-year warranty

## + Specifications ::

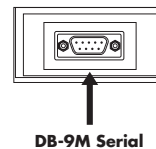


- 10/100Base-T Ethernet support
- 1 serial port (DB-9M)
- Switch selectable RS-232/422/485
- Baud rates up to 230 Kbps
- Full modem and hardware flow control
- Modem emulation
- TCP/UDP Socket Services
- Telnet and Reverse Telnet
- DHCP/RARP/ARP-Ping for IP address assignment
- HTTP configuration
- Patented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

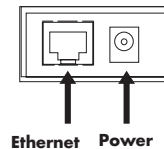
### Retail/POS



### Digi One SP - Front



### Digi One SP - Back



## Part Numbers ::

North America    International

### Model

Digi One SP - 1 port

70001851

70001852

All cables and accessories: pg. 158-159.

# Digi Connect SP<sup>®</sup> :: Standard and Customizable Serial Servers

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**Overview** :: The Digi Connect SP serial server delivers a powerful, compact and cost-effective off-the-shelf hardware platform for standard plug-and-play or embedded networking solutions.

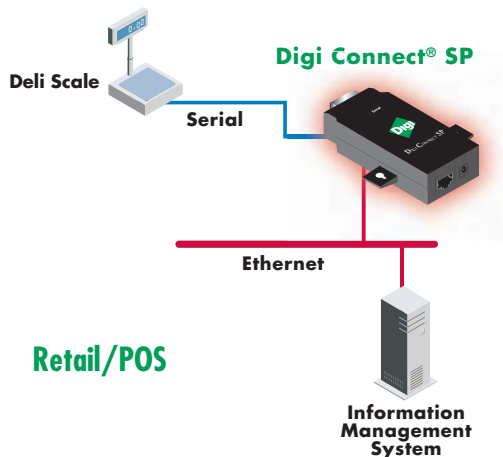
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## + Features ::



### General

- Compact off-the-shelf hardware platform for standard or custom network applications
- RS-232 only or switch-selectable RS-232/422/485 interface
  - Throughput up to 230,400 bps
- Integrated 10/100 Mbit network interface
- Flexible power input of 9-30VDC
- Digi's patented RealPort<sup>®</sup> redirector for COM or TTY port control and management
- IPv6 support for compatibility with next generation networks
- Automated security alerts via email and SNMP traps
- Standard firmware models for plug-and-play applications
- Complete serial-to-network connectivity and unique product customization flexibility
- Development Kit for custom applications
  - Based on Digi's royalty-free NET+OS<sup>®</sup> development platform
  - Integrated building blocks and tools significantly reduce traditional design risk, accelerate overall software development process
  - Includes Digi Connect SP w/JTAG, Macraigor Raven JTAG debugger and NET+OS software components
- 5-year warranty



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## + Specifications ::



### Custom Firmware Versions (Development Kit)

- Digi Connect SP w/JTAG
- Macraigor Raven JTAG debugger
- NET+OS software components
  - Microcross<sup>™</sup> GNU X-Tools with command line and visual GDB debugger
  - ThreadX<sup>®</sup> Real-Time Operating System with picokernel<sup>™</sup> architecture
  - Fusion<sup>™</sup> TCP/IP stack with full networking protocol and extended networking services support
  - TCP, UDP, ICMP, IGMP, DNS, SNMPv2, LDAP, POP, SMTP, PPP, FTP, SNT, Telnet, FastIP, Fast Sockets, Multi-Homing
  - Universal IP address assignment through Address Configuration Executive (ACE)
  - Static IP, DHCP, BOOTP, Auto-IP, RARP, ARP/Ping
  - Allegro Software embedded web server with HTTPS support
  - SSL 3.0/TLS 1.0 with strong encryption
  - DES (56-bit)
  - 3DES (168-bit)
  - AES (128/256-bit)
  - Flexible and robust file system supporting RAM and Flash (with wear leveling)
- SMICng MIB compiler
- Micro XML SAX parser
- Additional utilities
  - HTML-to-C compiler
  - Flash download
- Sample code
- Documentation
- Cables
- Loop-back adapter
- Power supplies

### Standard Firmware Versions

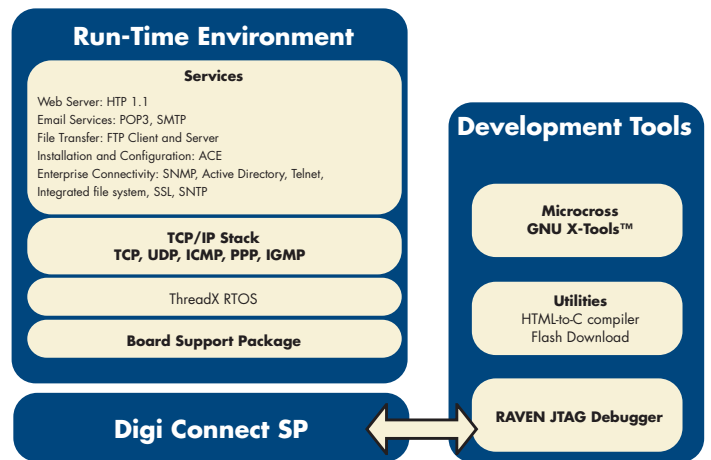
- Robust on-board TCP/IP stack with built-in web server
- Universal IP address assignment
  - Static IP, DHCP, Auto-IP
- Dynamic DNS support (DHCP Option 12)
- Pre-defined and custom device profiles
- Customizable web interface with optional Java applet support
- Telnet command line interface
- Modem emulation and port logging

## + Specifications cont. ::

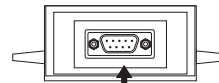
- Serial configuration interface
  - Command line, XML Remote Command Interface (RCI)
- User-defined network service/port configuration
  - HTTP/HTTPS, Telnet, Rlogin, Advanced Digi Discovery Protocol (ADDP), SNMP, RealPort, SSL/TLS, TCP/UDP
- User-configurable TCP/UDP Socket ID
- Data pattern event notification via email/SNMP traps
- Intelligent SNMP device management
- Strong SSL/TLS based encryption
- Patented RealPort COM/TTY port redirection for Microsoft<sup>®</sup> Windows<sup>®</sup>, UNIX and Linux

### Hardware

- 32-bit NET+ARM high-performance RISC processor (NS7520 55 MHz)
- 4 MB Flash, 16 MB RAM
- Auto-sensing 10/100 Mbit Ethernet interface and network link
- RS-232 or switch-selectable RS-232/422/485 serial interface (DB-9M connector)
  - Throughput up to 230,400 bps
  - 7/8 data bits
  - 1/1.5/2 stop bits
  - None/even/odd parity
  - Full signal support with software/hardware flow control
- Flexible 9-30VDC power supply

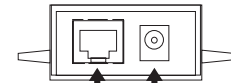


Digi Connect SP - Front



DB-9M  
Serial

Digi Connect SP - Back



Ethernet  
Power

## Part Numbers ::

North America International

### Development Kit Models

Digi Connect SP Development Kit (GNU) – Includes unit w/JTAG interface, hardware debugger, NET+OS platform CD, documentation, cables and power supplies.	DC-SP-01-GN	DC-SP-01-GN
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### Units for Custom Applications

Digi Connect SP (single-unit pack w/power supply)	DC-SP-01-C	DC-SP-01-C-W
Digi Connect SP (25-unit pack w/power supply)	DC-SP-01-C-25	DC-SP-01-C-W-25
Digi Connect SP, RS-232 Only (single unit w/power supply)	DC-SP-01R-C	DC-SP-01R-C-W
Digi Connect SP, RS-232 Only - Bulk (25-unit pack w/power supplies)	DC-SP-01R-C-25	DC-SP-01R-C-W-25

### Units with Standard Firmware

Digi Connect SP, RS-232/422/485 (single unit w/power supply)	DC-SP-01-S	DC-SP-01-S-W
Digi Connect SP, RS-232 - Bulk (25-unit pack w/power supplies)	DC-SP-01R-S-25	DC-SP-01R-S-W-25

# Digi Connect® Wi-SP :: Wireless Serial Servers

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**Overview** :: Digi Connect Wi-SP is the industry's first wireless serial server to provide enterprise-class wireless security through a complete set of strong encryption and authentication services, which are compliant with the WPA2 and 802.11i standards. It also offers comprehensive product customization options and intelligent remote management and monitoring through Digi Connectware® Manager device management software.

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## + Features ::



- Robust on-board TCP/IP stack with built-in web server
- Universal IP address assignment
  - Static IP, DHCP, Auto-IP
- Dynamic DNS support (DHCP Option 12)
- Secure web user interface (HTTP/HTTPS) with context-sensitive online help
- Pre-defined and custom device profiles
- Customizable web interface with optional Java applet support
  - File system w/512 kb user space
- Telnet command line interface
- Modem emulation and port logging
- Serial configuration interface
  - Command line, XML Remote Command Interface (RCI)
- User-defined network service/port configuration
  - HTTP/HTTPS, Telnet, Rlogin, Advanced Digi Discovery Protocol (ADDP), SNMP, RealPort, SSL/TLS, TCP/UDP
- TCP/UDP forwarding characteristics
  - Bytes, idle time, data pattern
- User-configurable TCP/UDP Socket ID
- Data pattern event notification via email/SNMP traps
- Intelligent SNMP device management
- Strong SSL/TLS based encryption
  - DES (56-bit), 3DES (168-bit), AES (128/256-bit)
- Digi's patented RealPort® with encryption and authentication for COM or TTY port control and management
- 5-year warranty

## + Specifications ::



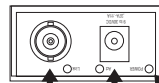
- 32-bit NET+ARM high-performance RISC processor (NS7520 55 MHz)
- 4 MB Flash and 16 MB RAM
- Switch-selectable RS-232/422/485 interface (DB-9M)
  - Throughput up to 230,400 bps
  - Full signal support with software/hardware flow control
- 802.11b wireless LAN interface
- Infrastructure (BSS) and Ad-Hoc Mode (IBSS)
- Flexible 9-30VDC power supply

Digi Connect Wi-SP - Front

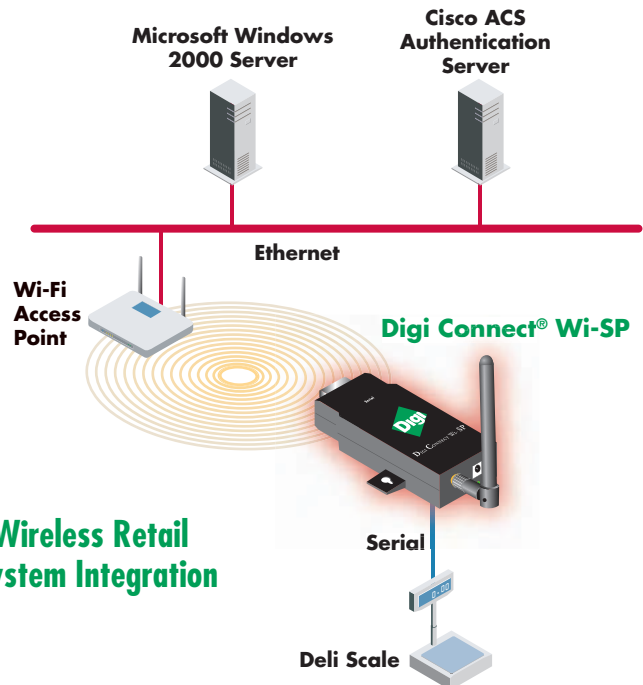


DB-9M  
Serial

Digi Connect Wi-SP - Back



Antenna  
Connector (SMA)    Power    LEDs



## Part Numbers ::

North America

International

### Model

Digi Connect Wi-SP (single-unit pack w/power supply and dipole antenna)

DC-WSP-01-S

DC-WSP-01-S-W

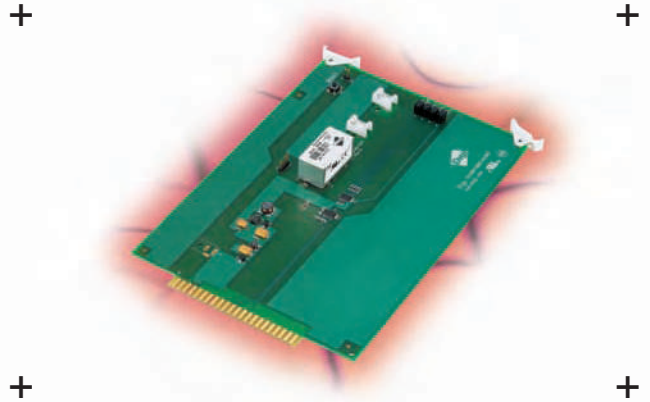
Digi Connect Wi-SP (25-unit pack w/power supplies and dipole antennas)

DC-WSP-01-S-25

DC-WSP-01-S-W-25

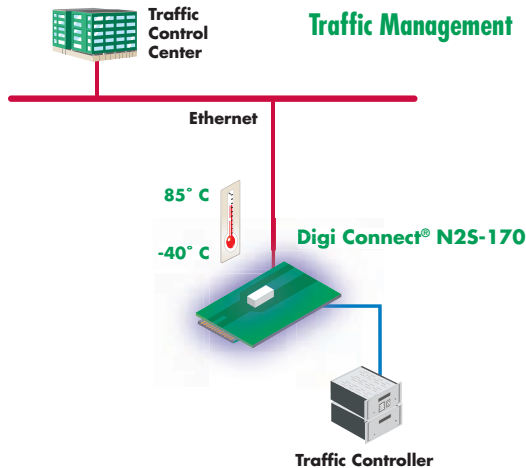
# Digi Connect® N2S-170 :: Ethernet Network Controller

**Overview** :: Built on leading Digi embedded device server technology, the Digi Connect N2S-170 card is an intelligent and highly integrated Ethernet network controller solution for Model 170 traffic signal controller equipment. It delivers reliable network connectivity for Model 170 equipment in a Model 400 modem card-compatible form factor.



## + Features ::

- Designed for Model 170 traffic signal controller equipment
- Form factor compatible with Model 400 modem cards
- Seamless network-to-serial conversion
- 10/100 Mbit Ethernet network interface
- Easy configuration through web interface
- Serial interface supports data rates from 300 bps up to 230 kbps
- Digi's patented RealPort® COM port redirector for Microsoft Windows, UNIX and Linux environments
- Strong NIST-certified data encryption
- Industrial operating temperature range -40° C to 85° C (-40° F to 185° F)
- Lead-free and RoHS compliant design
- UL/UR safety mark
- 5-year warranty



## + Specifications ::

### Hardware

- Form factor compatible with Model 400 modem cards
- 32-bit NS7520 NET+ARM processor
- 4 MB Flash / 8 MB SDRAM
- 10/100 Mbit Ethernet interface
- High-speed serial interface
- Robust on-board TCP/IP stack
- Universal IP address assignment
  - Static IP, DHCP, Auto-IP
- Secure web user interface (HTTP/HTTPS) with context sensitive online help
- Telnet command line interface
- Pre-defined and custom device profiles
- Modem emulation and port logging
- Network service/port control (port block)
  - HTTP
  - Telnet
  - RealPort
  - SSL/TLS
  - TCP/UDP
  - Other
- TCP/UDP forwarding characteristics
  - Bytes, idle time, data pattern
- User-configurable TCP/UDP
- Socket ID
- Data pattern event notification via email/SNMP traps
- Intelligent SNMP device management capabilities
- Strong SSL/TLS base encryption
  - DES (56-bit)
  - 3DES (168-bit)
  - AES (128/256-bit)

### Network Interface

- Standard: IEEE 802.3
- Physical layer: 10 Base-T
- Data rate: 10/100 Mbps (auto-sensing)
- Mode: Full or half duplex (auto-sensing)

## Part Numbers ::

Worldwide

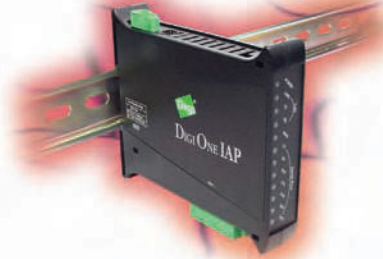
### Model

Digi Connect N2S-170 Card (single-pack)  
Digi Connect N2S-170 Card (10-unit bulk pack)

DC-N2S-170-S  
DC-N2S-170-S-10

# Digi One® IAP :: Industrial Serial Servers

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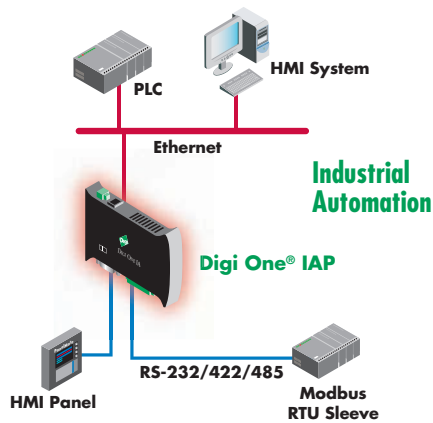
**Overview ::** Digi One IAP is a serial server and industrial protocol bridge rolled into one. It delivers all the features and functionality of the Digi One IA plus industrial protocol bridging and multi-master support. Digi One IAP can bridge any two industrial serial devices provided they speak one of the supported serial (Modbus, DF1, ASCII) or Ethernet (Modbus/TCP, AB/Ethernet, EtherNet/IP) protocols. Multi-master capability allows multiple masters to simultaneously communicate with a single slave.

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## + Features ::



- TCP/UDP and Digi's patented RealPort COM/TTY redirector for remote COM port access – any serial protocol can be moved from device over the network to a PC
- Multi-master/multi-protocol concurrent support for Allen-Bradley and Modbus protocols
- Serial and Ethernet protocol bridging support for Allen-Bradley and Modbus protocols promotes interoperability
- ASCII to protocol translation for Allen-Bradley and Modbus
- Integrated DIN rail mounting
- RS-232/422/485 switch selectable including DB-9 and screw terminal connectors for added flexibility
- Galvanically isolated (from earth ground)
- Class 1, Division 2 rated
- Tunable for low latency or optimized throughput
- NIST FIPS-197 certified (secure AES)
- 5-year warranty



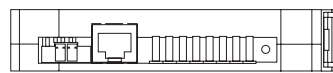
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## + Specifications ::



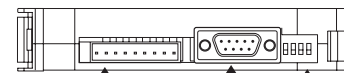
- 10/100Base-T Ethernet support
- Switch selectable RS-232/422/485 RJ-45 serial (Port 1)
- DB-9M and screw terminal block serial port
  - Can be enabled as second direct RS-232 port connection to device on screw terminal
- Baud rates up to 230 Kbps
- Protocol bridge support
  - Ethernet protocols: Modbus/TCP, EtherNet/IP, Allen-Bradley Ethernet
  - Serial protocols: ASCII, DF1, Modbus RTU/ASCII
- Multi-master support for above plus Omron serial and user-defined protocols
- SSL/TLS for encryption and authentication
- TCP/UDP Socket Services
- Support for 64 concurrent socket connections
- Web-based browser configuration
- Patented RealPort technology
- RFC 2217 support
- SNMP (read/write)
- PPP
- DHCP/RARP, ARP-Ping, Static IP for IP address assignment
- Digi Port Authority – Remote management diagnostics and auto-discovery tool
- 35 mm DIN rail mounting
- 9-30VDC input
- 12 diagnostic LEDs
- Tunable latency

Digi One IAP - Top



Power Input (Screw Terminals) Ethernet

Digi One IAP - Bottom



Serial Port (Screw Terminals) DB-9M Serial DIP Switches

## Part Numbers ::

North America International

### Model

Digi One IAP - 1 port

70001777

70001777

All cables and accessories: pg. 158-159.



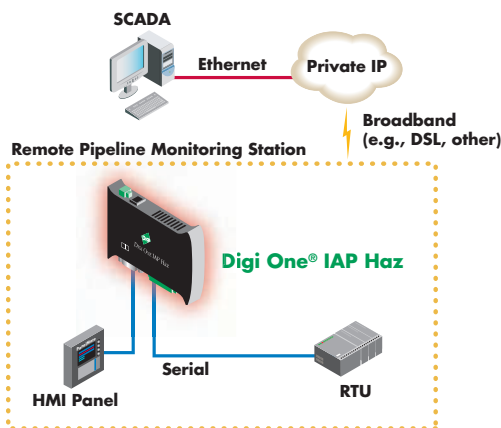
# Digi One® IAP Haz :: Industrial Serial Servers (Hazardous)

**Overview** :: The Digi One IAP Haz provides a means of connectivity and interoperability for serial and Industrial Ethernet devices such as Programmable Logic Controllers (PLCs), motors, drives, bar-code readers displays and other types of devices deployed in harsh environments where exposure to extreme temperatures and volatile liquids and gases is common. Applications for the Digi One IAP Haz will be found in many manufacturing environments, power or natural resource distribution and water/wastewater management.



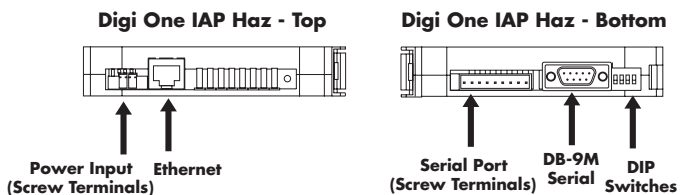
## + Features ::

- Hardened design with extended operating temperature -35° C to 74° C (-31° F to 165° F)
- Conformal coated circuit board
- Class 1, Division 2 rated
- TCP/UDP and Digi's patented RealPort COM/TTY redirector for remote COM port access – any serial protocol can be moved from device over the network to a PC
- Multi-master/multi-protocol concurrent support for Allen-Bradley and Modbus protocols
- Serial and Ethernet protocol bridging support for Allen-Bradley and Modbus protocols promotes interoperability
- ASCII to protocol translation for Allen-Bradley and Modbus
- Integrated DIN rail mounting
- RS-232/422/485 switch selectable including DB-9 and screw terminal connectors for added flexibility
- Second serial port can be used as a pass-through port
- Galvanically isolated (from earth ground)
- Tunable for low latency or optimized throughput
- NIST FIPS-197 certified (secure AES)
- 5-year warranty



## + Specifications ::

- 10/100Base-T Ethernet support
- Switch selectable RS-232/422/485 RJ-45 serial (Port 1)
- DB-9M and screw terminal block serial port
  - Can be enabled as second direct RS-232 port connection to device on screw terminal
- Baud rates up to 230 Kbps
- Protocol bridge support
  - Ethernet protocols: Modbus/TCP, Ethernet/IP, Allen-Bradley Ethernet
  - Serial protocols: ASCII, DF1, Modbus RTU/ASCII
- Multi-master support for above plus Omron serial and user-defined protocols
- SSL/TLS for encryption and authentication
- TCP/UDP Socket Services
- Support for 64 concurrent socket connections
- Web-based browser configuration
- Patented RealPort technology
- RFC 2217 support
- SNMP (read/write)
- PPP
- DHCP/RARP, ARP-Ping, Static IP for IP address assignment
- Digi Port Authority – Remote management diagnostics and auto-discovery tool
- 35 mm DIN rail mounting
- 9-30VDC input
- 12 diagnostic LEDs
- Tunable latency



## Part Numbers ::

North America International

### Model

Digi One IAP Haz  
12VDC, 100-240VAC Extended Temperature Power Supply (no plug)

70002326  
76000736

70002326  
76000736

All cables and accessories: pg. 158-159.

# Digi One<sup>®</sup> IA :: Industrial Serial Servers

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**Overview ::** Digi One IA adds serial-to-Ethernet and Modbus-to-Modbus/TCP network connectivity to virtually any industrial device with a serial port in minutes. Designed to meet the specific requirements of the industrial automation market, it offers an easy way to network-enable previously isolated RS-232/422/485 serial devices such as Programmable Logic Controllers (PLCs), Remote Terminal Units (RTUs), process and quality equipment, motors, drives, bar-code readers and operator displays.

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## + Features ::



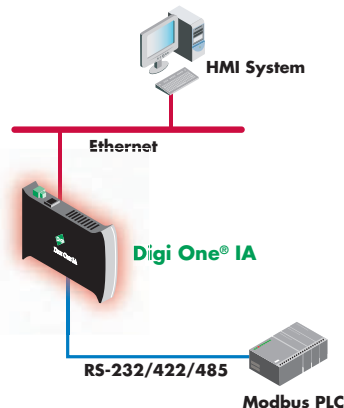
- Easily Ethernet-enable any industrial serial device
- Modbus serial to Modbus/TCP protocol conversion
- Supports serial master and serial slave modes
- Supports up to 10 Modbus masters
- Industrial DIN rail mounting for use in space-prohibitive control cabinets
- RS-232/422/485 switch selectable including DB-9 and screw terminal connectors
- Digi's patented RealPort<sup>®</sup> redirector for COM or TTY port control and management
- TCP/UDP Socket Services for broad device connectivity and application use
- Galvanically isolated (from earth ground)
- Class 1, Division 2 rated
- Tunable for low latency or optimized throughput
- Easy configuration through web browser interface (HTTP)
- 5-year warranty

## + Specifications ::

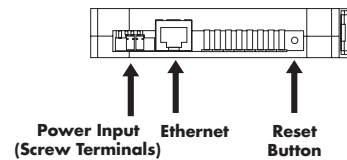


- 10/100Base-T Ethernet support
- 1 serial port (DB-9 and screw terminal connectors)
- Switch selectable RS-232/422/485
- 9-30VDC input with screw terminal block power jack
- Patented RealPort technology
- TCP/UDP Socket Services
- UDP
- Telnet, Reverse Telnet and extended Telnet
- HTTP browser configurable
- DHCP/RARP, APR-Ping for IP addressing assignment
- Flash upgradeable firmware
- Baud rates up to 230 Kbps
- Full modem and hardware flow control
- 35 mm DIN rail mounting
- LED status for serial signals, power, Ethernet and diagnostics
- RFC 2217 support

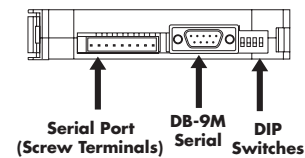
### Industrial Automation



Digi One IA - Top



Digi One IA - Bottom



## Part Numbers ::

North America International

### Model

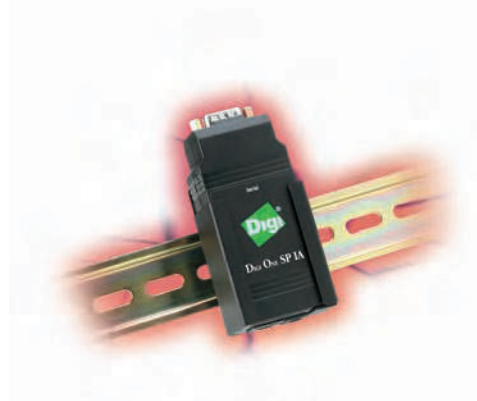
Digi One IA - 1 port

70001862

70001862

# Digi One® SP IA :: Industrial Serial Servers

**Overview** :: Digi One SP IA allows any industrial device with a serial port to be easily connected to Ethernet. The compact serial server is designed for entry level RS-232/422/485 serial-to-Ethernet connectivity for industrial automation applications and includes all DIN rail mounting hardware.

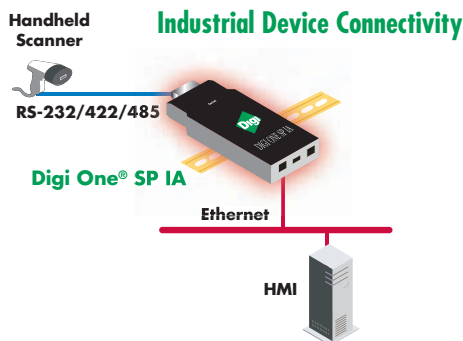


## + Features ::

- DIN rail and wall mount kits for flexible mounting options
- 9-30VDC power with bare-wire "pigtail" for direct connection included
- Easy configuration using installation CD
- Compact form factor – only 3.70 in (9.04 cm) in length
- Digi's Patented RealPort® redirector 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 a 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 serial interface supports any type of serial device
- Modem emulation allows support for devices designed only for modem communications
- 5-year warranty

## + Specifications ::

- 10/100Base-T Ethernet support
- 1 serial port (DB-9M)
- Switch selectable RS-232/422/485
- Baud rates up to 230 Kbps
- DIN rail and wall mount kit included
- Full modem and hardware flow control
- Modem emulation
- TCP/UDP Socket Services
- Telnet and Reverse Telnet
- DHCP/RARP/ARP-Ping for IP address assignment
- HTTP configuration
- Patented RealPort technology
- LED status for link and power



Digi One SP IA - Front



DB-9M Serial

Digi One SP IA - Back



Ethernet Power

## Part Numbers ::

North America International

### Model

Digi One SP IA – 1 port

70001999

70002000

All cables and accessories: pg. 158-159.

# PortServer® TS 8/16 Family :: Standard Serial Servers

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**Overview** :: The PortServer TS 8/16 family delivers simple, reliable and cost-effective RS-232/422/485 serial-to-Ethernet connectivity with a robust feature set for efficient device management. It is ideal for a wide range of applications including property management, retail/POS, inventory and logistics management, and industrial automation. The PortServer TS 8/16 family also offers additional value for secure console access applications that do not require the high-end features of the Digi Passport or Digi CM.

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## + Features ::

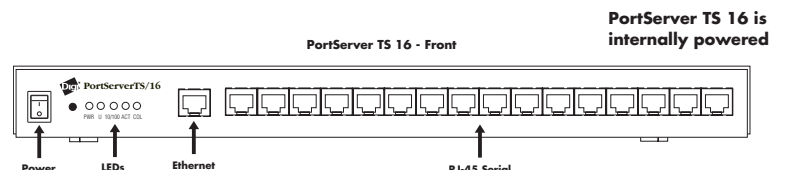
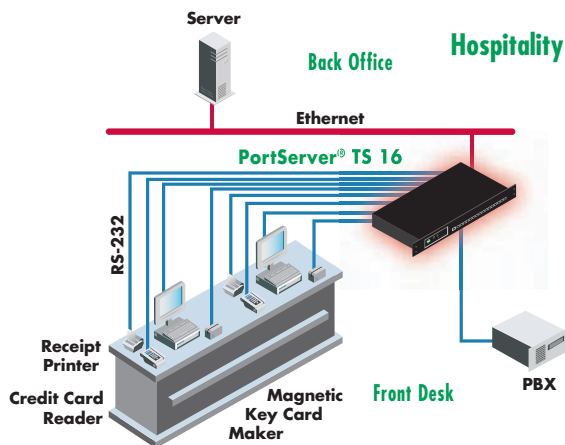


- Cost-effective serial-to-network connectivity
- SSHv2 ensures encrypted connections
- Digi's patented RealPort® with encryption and authentication for COM or TTY port control and management
- Ports may be shared between multiple hosts running different operating systems
- Supports SNMP for easy network management
- Supports RADIUS authentication and accounting
- Tunable for low latency or optimized throughput
- 5-year warranty

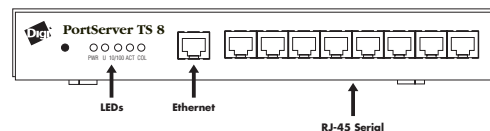
## + Specifications ::



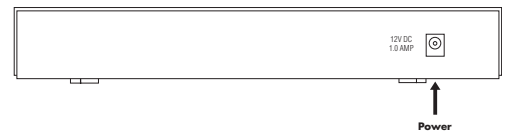
- 10/100Base-T Ethernet support
- 8 or 16 serial ports (RJ-45)
- RS-232 and switch selectable RS-232/422/485 models
- Baud rates up to 230 Kbps
- TCP/UDP/Telnet Socket Services
- Patented RealPort with encryption and authentication
- RFC 2217 support
- 48VDC power option (RS-232 models only)
- Modem emulation
- SNMP (read/write)
- PPP
- SSHv2, SSL/TLS
- Port buffering
- Modbus to Modbus/TCP conversion
- HTTP
- Digi Port Authority – Remote management diagnostics and auto-discovery tool
- DHCP/RARP/ARP-Ping for IP address assignment



PortServer TS 8 - Front



PortServer TS 8 - Back



## Part Numbers ::

North America International



### Model

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

**Cables and accessories: pg. 158-159.**

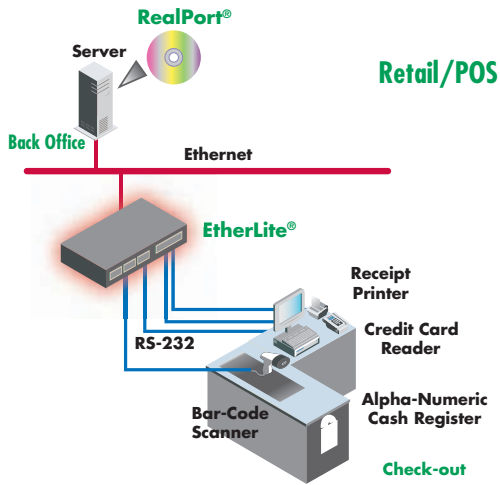
See [www.digi.com](http://www.digi.com) for additional cable converters.

# EtherLite® :: Standard Terminal Servers

**Overview** :: The EtherLite family blends the control and performance of asynchronous serial communications with the convenience of an Ethernet connection. Available in two- to 32-port versions, the traffic from all serial ports is serviced by a single TCP/IP session. EtherLite requires a connection to a computer with a Digi-supported operating system and offers network efficiency at a low price per port. It is ideal for retail/POS, process control and data collection.

## + Features ::

- Choose from RS-422, RS-485 and RS-232/422 switch selectable models for added flexibility
- Multiplexes all serial ports into a single TCP/IP session, minimizing Ethernet traffic
- Digi's patented RealPort® with encryption and authentication drivers for UNIX, Linux and Windows
- Delivers real serial ports, without Telnet, Rlogin, Reverse Telnet or other complex networking overhead
- 5-year warranty



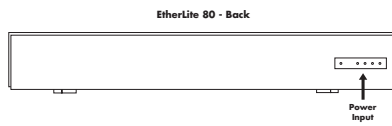
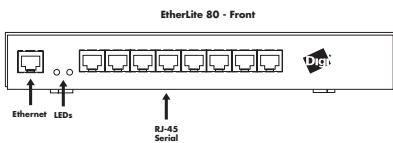
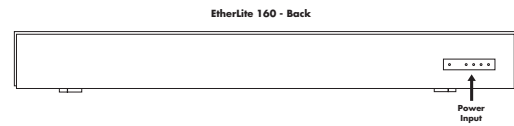
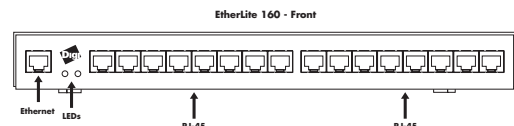
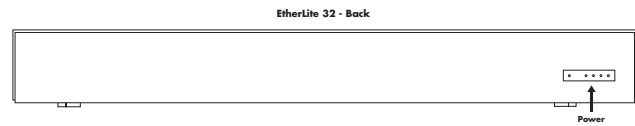
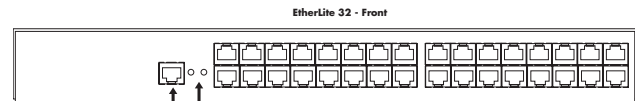
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## + Specifications ::

- 2, 8, 16 or 32 asynchronous serial ports
- 2-port RS-422 or RS-485 serial
- 16-port switch selectable RS-232/422 serial
- Up to 115 Kbps on all ports simultaneously
- Auto-detection of either 10 Mbps or 100 Mbps Ethernet (EtherLite 80, 160 and 162 models)
- BOOTP or Static IP support
- Full RAS support for Windows 2000, Windows XP, Windows Server 2003
- 1U rack-mountable 32-port model



## Part Numbers ::

North America International

### Model

EtherLite 2 - 2 ports, RS-232, RJ-45	70001430	70001531
EtherLite 2 - 2 ports, RS-422, RJ-45	70001432	70001532
EtherLite 2 - 2 ports, RS-485, RJ-45	70001683	70001706
EtherLite 160 - 16 ports, RS-232, RJ-45	70001427	70001528
EtherLite 160 - 16 ports, RS-232, 48VDC, RJ-45	70001877	70001877
EtherLite 162 - 16 ports, RS-232/422, RJ-45	70001428	70001529
EtherLite 32 - 32 ports, RS-232, RJ-45	70001429	70001533
EtherLite 80 - 8 ports, RS-232, RJ-45	70001767	70001768

All cables and accessories: pg. 164.

# Digi Connect<sup>®</sup> ES :: Serial Server (Extended Electrical Safety)

+



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**Overview** :: Digi Connect ES is the first IEC 60601/EN60601 compliant device of its kind. It has four, eight or 16 galvanic isolated RS-232 serial ports, with a 10/100 Mbps network interface and optional Ethernet switch (eight-, 16-port models). It may be used to provide Ethernet connections from serial devices such as ventilators, EKGs, patient monitoring systems, infusion pumps and glucose meters to a central data management system.

+

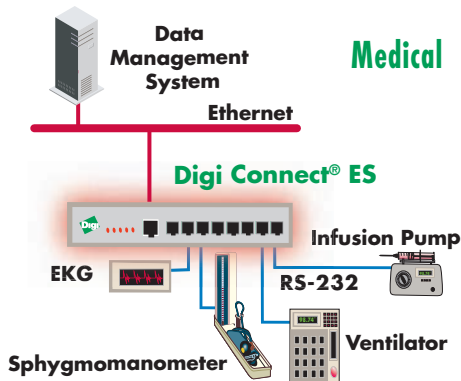
## + Features ::

- 4-, 8- or 16-port RS-232 serial-to-network connectivity
- IEC 60601 compliant
- Galvanic isolation on all ports
  - Ensures there is no electrical path from port to port
  - Prevents a ground fault from affecting the operation of the Digi Connect ES or any device connected to it
- Wall mountable
- Digi's patented RealPort<sup>®</sup> technology provides local serial port functionality; encryption and authentication available for SSL-based protection for additional security
- Supports SNMP for easy network management

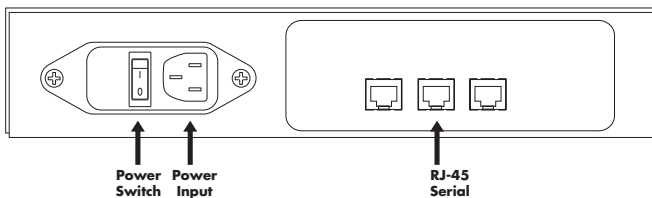
+

## + Specifications ::

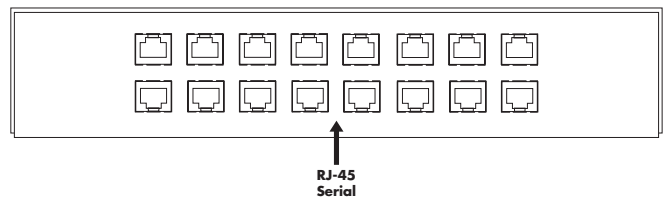
- 4, 8 or 16 isolated RS-232 serial ports (2.5 kV)
- RJ-45 serial connectors
- Isolated Ethernet ports (1.5 kV)
- Connects to 10/100 Mbps Ethernet LAN
- Optional 3-port Ethernet switch on 8- and 16-port models
- DHCP, RARP and ARP-Ping for easy IP address assignment
- HTTP for easy browser configuration
- Telnet, Reverse Telnet, Rlogin and auto-connect
- Up to 9 Telnet or Rlogin sessions per port
- TCP and UDP Socket support
- Password access
- Line Printer Daemon (LPD)
- SNMP
- HTTPS, SSL/TLS
- Digi Port Authority-Remote for easy monitoring
- Easy firmware upgrades via TFTP
- Surge protection on all ports
- 230 Kbps throughput on all ports
- Full modem and hardware flow control
- LEDs for serial and Ethernet activity
- White metal enclosure
- SSHv2 feature available on all ports simultaneously



Digi Connect ES - Front



Digi Connect ES - Back



## Part Numbers ::

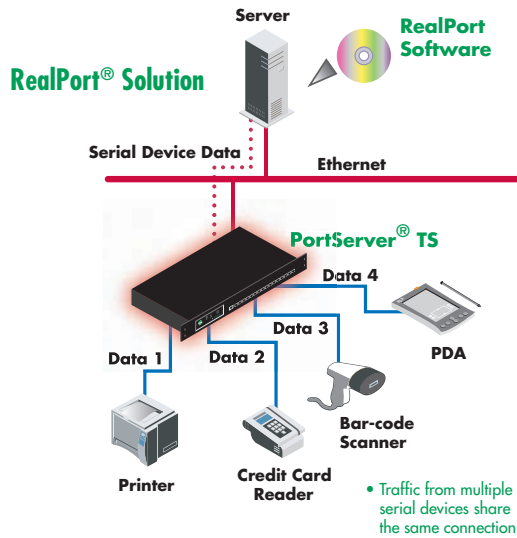
North America International

### Model

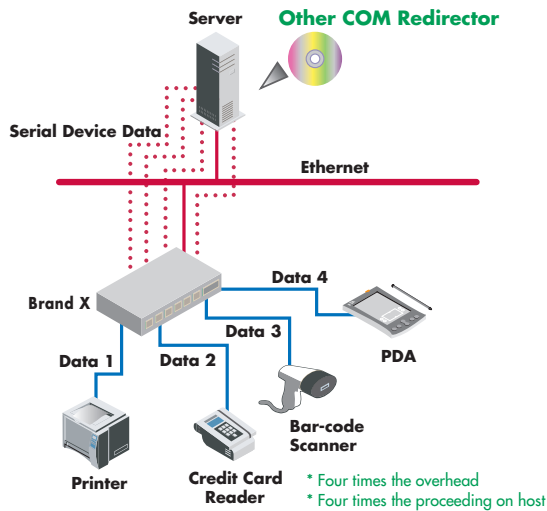
Digi Connect ES 4 - 4 ports	DC-ES-4	DC-ES-4-EU
Digi Connect ES 8 - 8 ports	DC-ES-8	DC-ES-8-EU
Digi Connect ES 8 with Ethernet Switch - 8 ports	DC-ES-8-SW	DC-ES-8-SW-EU
Digi Connect ES 16 - 16 ports	DC-ES-16	DC-ES-16-EU
Digi Connect ES 16 with Ethernet Switch - 16 ports	DC-ES-16-SW	DC-ES-16-SW-EU
Digi Connect ES VESA Mounting Bracket	DC-ES-BKT	DC-ES-BKT

All cables and accessories: pg. 159.

## RealPort® :: Management Tools/Special Features



### Other COM Redirector



**Overview ::** Digi's patented RealPort software allows companies to easily network-enable serial devices without spending valuable time and money to re-write existing application programs. Many of today's key business applications were written to talk to serial devices that are directly connected to servers; however, these devices are often located far away from servers or PCs.

RealPort software leverages the TCP/IP network infrastructure to provide a virtual connection to serial devices. The software is installed directly on the server and allows applications to talk to devices across a network as though the devices were directly attached to the server. In actuality, the devices are connected to a Digi external serial server somewhere on the network.

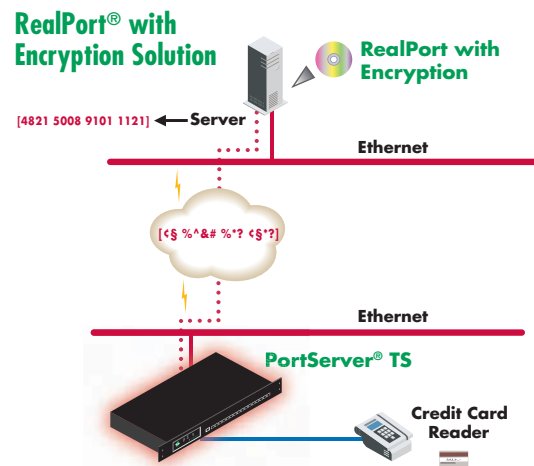
RealPort software is unique among COM port redirectors. It is the only implementation that allows multiple connections to multiple ports over a single TCP/IP connection. This means RealPort supports the maximum number of remote devices – the number is restricted only by the operating system and server processing power. Other implementations on the market require a separate TCP/IP connection for each serial port, resulting in higher network overhead and more processing demands on the server.

RealPort is a standard feature of all Digi external serial servers. OS support includes Microsoft Windows Server 2003, Vista, XP, 2000, NT, 98, Me; SCO Open Server and UnixWare; Linux; AIX; True 64; Sun Solaris SPARC and Intel; HP-UX; and NCR UNIX MP-RAS.

## RealPort® with Encryption :: Management Tools/Special Features

**Overview ::** Digi takes RealPort technology a step further with patent-pending RealPort with Encryption, offering a secure Ethernet connection between the COM or TTY port and a serial server. Encryption prevents internal and external snooping of data across the network by encapsulating the TCP/IP packets in a Secure Sockets Layer (SSL) connection and encrypting the data using Advanced Encryption Standard (AES), one of the latest, most efficient security algorithms.

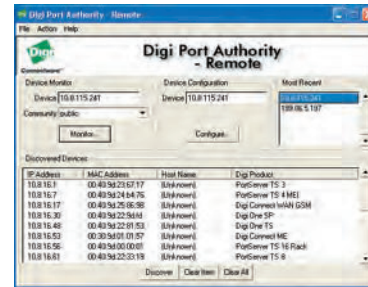
RealPort with Encryption is available on all PortServer TS and Digi Connect models as well as Digi One IAP. Other models run standard RealPort.



## Port Authority - Remote :: Management Tools/Special Features

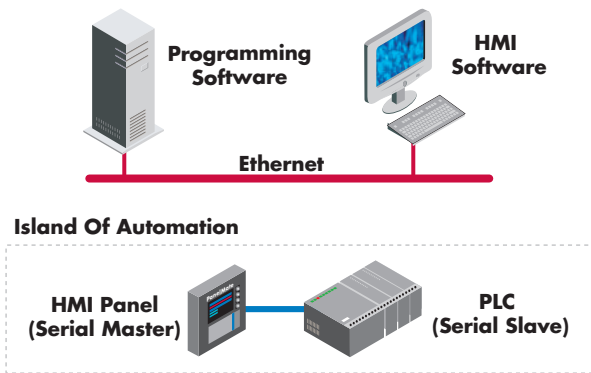
**Overview** :: Digi Port Authority – Remote (DPA – Remote) provides the ability to find Digi devices on your network, assign IP addresses and monitor serial ports, Ethernet and protocols. This tool can be used from a UNIX or Windows based client or server and is designed to troubleshoot flow control, wiring and receive/transmit of data for all serial ports.

DPA – Remote provides a graphing tool of receive data and buffer space that is refreshed at a user configurable rate. DPA - Remote is standard with the Digi One IA, Digi One IAP, Digi One SP, PortServer TS and all PortServer TS MEI products.



## Pass-Through Port :: Management Tools/Special Features

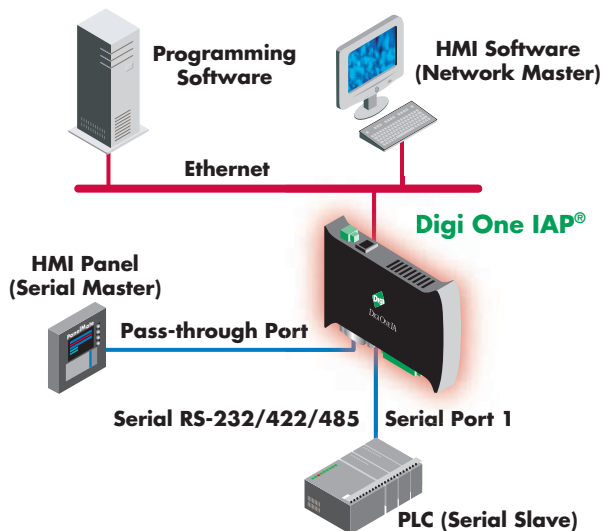
### Solution Before Pass-Through Port



**Overview** :: Digi One IAP has a second serial port that can optionally be configured as a pass-through port. When a PLC or other serial device is plugged into a serial server without pass-through functionality, the serial port on the PLC is unavailable for local use. Now, with the new Digi One IAP pass-through feature, the single serial port on the PLC can be shared. An HMI panel or local PC can be used to program the PLC without interrupting the network masters already connected to the PLC.

This pass-through functionality eliminates the need to unplug the serial port from the Digi One IAP to connect a local serial master to the PLC.

### Digi Pass-Through Port Solution

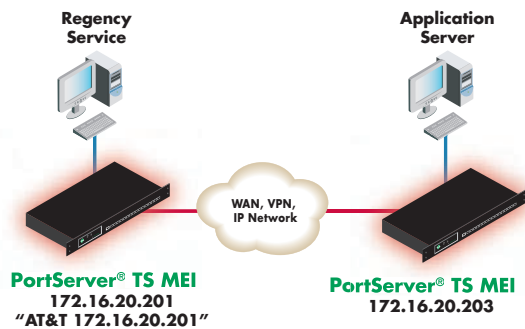


Using the pass-through port on the Digi One IAP enables you to perform remote programming from your desk via the network, without losing the ability to locally program the PLC via the serial port. Another key benefit is the ability to connect a PLC to the network without losing a serial port-attached HMI.

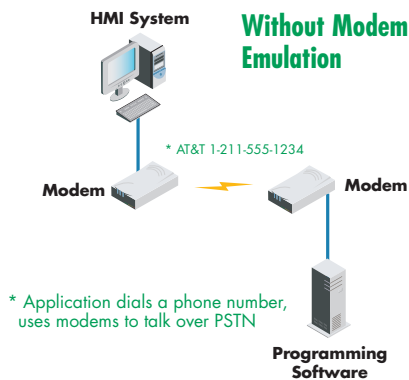


## Modem Emulation :: Management Tools/Special Features

### With Digi's Modem Emulation



- \* Phone number replaced with IP address of host
- \* Digi serial server dials up IP address to communicate over Ethernet



**Overview** :: Digi's modem emulation technology enables a networked Digi serial server to act as a modem to send and receive data over an IP network instead of a PSTN (Public Switched Telephone Network). This means that equipment designed only for modem access can now communicate transparently to its corresponding software application across the Ethernet.

The Digi product emulates modem responses to a serial device in the field and seamlessly sends and receives data over an Ethernet network. Embedded, pre-designed devices can treat the Digi device like a modem, but allow it to "dial up" an IP address instead of a phone number. A key benefit is the ability to retain legacy software applications and devices without reprogramming devices in the field. Modem emulation also promotes cost savings by utilizing an IP network instead of a PSTN.

The modem emulation feature is available with Digi One SP, Digi One IA, Digi One IAP, Digi Connect SP, Digi Connect Wi-SP and all PortServer models.

## FIPS Certification :: Management Tools/Special Features

**Overview** :: Digi International has received Federal Information Processing Standards Publication 197 (FIPS-197) certification from the National Institute of Standards and Technology (NIST), providing additional security qualifications to our serial-to-Ethernet product lines. The FIPS certification assures federal government agencies that our connectivity products meet the necessary security measures for secure data communications

The Digi Connect product family shares a common implementation of an AES Encryption Algorithm based on Open SSL v0.9.7b. This algorithm has been FIPS certified on the Digi Connect ME and is common to all Digi Connect products.

The PortServer TS and Digi One product families share a common implementation of an AES Encryption Algorithm incorporated with Open SSLv0.9.6c. This algorithm has been FIPS certified on the PortServer TS 4 MEI and PortServer TS 16.

Certification for these products can be confirmed at <http://csrc.nist.gov/cryptval/aes/aesval.html> (see certifications #203 and #204).



# Embedded Solutions

## Modules, Development Tools and Microprocessors

Digi's embedded products enable device intelligence and connectivity in a broad range of industries, including industrial automation, building automation and security, medical, retail/POS, office automation, and others. They deliver fast and easy integration and uncompromising performance. Regular hardware and software updates also ensure a future-proof design in the customer's end product.

### Embedded Modules and Microprocessors

Digi offers ARM-based, ZigBee and proprietary RF embedded modules. The NET+ARM-based Digi Connect<sup>®</sup> and ConnectCore<sup>™</sup> families are the industry's first interchangeable wired and wireless embedded modules, enabling OEMs to design in both wired 10/100 Ethernet and secure wireless 802.11b/g network connectivity with a single design effort. Our low-cost RF modules are ideal for long-range wireless data communications and mesh networking.

Modules built on our 32-bit NET+ARM microprocessors are fully supported by the royalty-free NET+OS development environment. A highly integrated "system-on-chip" approach seamlessly combines system-on-silicon and software for Internet- and Ethernet-connected products.

### Development Tools

Development Kits and extensive support options lower the risk and increase productivity when using Digi embedded products. Digi JumpStart Kits<sup>™</sup> (available for selected embedded modules) are a new breed of development kit designed to enable rapid prototyping and application development within 30 minutes of installation. They include a module, baseboard and complete development hardware and software environment for out-of-the-box product development. These easy-to-use, cost-effective and complete development solutions dramatically shorten traditional time-to-market aspects of your embedded product.

For maximum flexibility, Digi JumpStart Kits support multiple operating environments, including Microsoft<sup>®</sup> Windows<sup>®</sup> CE, Linux<sup>®</sup>, Microsoft .NET Micro Framework and our own ThreadX<sup>®</sup>-based NET+OS<sup>®</sup>.

### Seamless Migration to Total Integration

Digi embedded modules combine true plug-and-play functionality with the freedom and flexibility of complete software customization. Software applications developed with NET+OS APIs and other operating systems can fully migrate across Digi Connect and ConnectCore hardware platforms, maximizing your initial investment and reducing the overall development effort.



## + Embedded Solutions – Modules, Development Tools and Microprocessors

### Embedded Modules

#### ARM-Based Networking Modules

- Digi Connect ME® Family ..... pg. 48-49
- Digi Connect EM® Family ..... pg. 50-51
- ConnectCore™ 7U and ConnectCore™ 9U..... pg. 52
- ConnectCore™ 9C and ConnectCore™ Wi-9C ..... pg. 53
- ConnectCore™ 9P 9360 ..... pg. 54
- ConnectCore™ 9M ..... pg. 55
- ConnectCore™ XP ..... pg. 56

#### OEM RF Modules

- ZigBee/802.15.4 OEM RF Modules
  - XBee™ and XBee-PRO™ ..... pg. 59
- Proprietary RF Modules
  - XTend™ ..... pg. 60
  - XStream™ ..... pg. 61
  - XCite™ ..... pg. 62

### Development Kits

#### ARM-Based Networking Modules

- Digi Connect® Family Integration Kits ..... pg. 63
- Digi Connect® Family Digi JumpStart Kits™ ..... pg. 64
- ConnectCore™ 7U Digi JumpStart Kits™ ..... pg. 65
- ConnectCore™ 9C and ConnectCore™ Wi-9C Digi JumpStart Kits™ .. pg. 66
- ConnectCore™ 9P 9360 Digi JumpStart Kits™ ..... pg. 67
- ConnectCore™ 9M Development Kits ..... pg. 68
- ConnectCore™ XP Development Kits ..... pg. 69

#### OEM RF Modules

- XBee™ and XBee-PRO™ Development Kits ..... pg. 70
- XTend™ Development Kits ..... pg. 71
- XStream™ Development Kits ..... pg. 71
- XCite™ Development Kits ..... pg. 71

### Software and Support

- NET+OS® 7 ..... pg. 72-73
- Microsoft® Windows® Embedded CE 6.0 ..... pg. 74
- Digi Embedded Linux® ..... pg. 75
- Microsoft® .NET Micro Framework 2.0 ..... pg. 76
- Digi Professional Services ..... pg. 77
- Embedded Technical Support ..... pg. 78

### Microprocessors

- NS9215/NS9210 ..... pg. 79
- NS9360 ..... pg. 79
- NS9750 ..... pg. 79
- NS9775 ..... pg. 80
- NS7520 ..... pg. 80
- NET+50 ..... pg. 80

	Digi Connect ME	Digi Connect EM	Digi Connect Wi-ME	Digi Connect Wi-EM
Processor Type	Digi NS7520	Digi NS7520	Digi NS7520	Digi NS7520
ARM Core	ARM7TDMI	ARM7TDMI	ARM7TDMI	ARM7TDMI
Processor Speed	55 MHz	55 MHz	55 MHz	55 MHz
Memory Base Population	2 MB Flash	4 MB Flash	4 MB Flash	4 MB Flash
	8 MB SDRAM	8 MB SDRAM	8 MB SDRAM	8 MB SDRAM
Additional Population Options	4 MB Flash	None	None	None
	None	None	None	None
Power Req @ 3.3V (typ/max)	250 mA typ	270 mA max	400 mA max	400 mA max
Power Over Ethernet (PoE)	Mid-span			
Standard Operating Temp	-40° to 85° C	-40° to 85° C	-30° C to 75° C	-30° C to 75° C
Pins/Form Factor	20-pin connector	12-pin connector	20-pin connector	12-pin connector
10/100 Ethernet Support	RJ-45 included	RJ-45 included		
802.11b			•	•
UART	1	2	1	2
GPIO	Up to 5	Up to 9	Up to 5	Up to 9
SPI		•		•
I <sup>2</sup> C				

Legend:

- Module Feature

	ConnectCore 7U	ConnectCore 9U	ConnectCore 9C	ConnectCore Wi-9C
Processor Type	Digi NS7520	Atmel AT91RM200	Digi NS9360	Digi NS9360
ARM Core	ARM7TDMI	ARM920T	ARM926EJ-S	ARM926EJ-S
Processor Speed	55 MHz	160 MHz	155 MHz	155 MHz
Memory Base Population	2 MB Flash	16 MB Flash	4 MB Flash	4 MB Flash
	16 MB SDRAM	32 MB SDRAM	16 MB SDRAM	16 MB SDRAM
Additional Population Options	8 MB Flash	None	Up tp 256 MB Flash	Up tp 256 MB Flash
	None	None	Up tp 128 MB RAM	Up tp 128 MB RAM
Power Req @ 3.3V (typ/max)	280 mA	152 mA	450 mA	800 mA max
Power Over Ethernet (PoE)	Capable	Capable	End- and mid-span	End- and mid-span
Standard Operating Temp	0° C to 70° C	0° C to 70° C	-40° C to 85° C	-30° C to 75° C
Pins/Form Factor	48-pin DIL	48-pin DIL	144-pin SO-DIMM	144-pin SO-DIMM
10/100 Ethernet Support	MAC/PHY	MAC/PHY	RJ-45 included	RJ-45 included
802.11b/g				•
UART	Up to 2	Up to 2	Up to 4	Up to 4
GPIO	Up to 16	Up to 16	Up to 55	Up to 55
SPI	•	•	•	•
I <sup>2</sup> C	•	•	•	•
USB Host/Device (2.0 Full Speed)		•	•	•
Integrated USB Connectors			2 Host	2 Host
LCD Controller			•	•
Special Features	• Industrial temperature rated module available			

Legend:  
• Module Feature

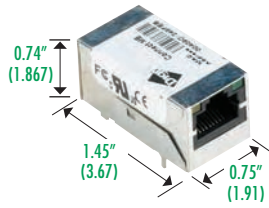
	ConnectCore 9P 9360	ConnectCore 9P 9750	ConnectCore 9M	ConnectCore XP
Processor Type	Digi NS9360	Digi NS9750	Samsung S3C2440	Marvell PXA270
ARM Core	ARM926EJ-S	ARM926EJ-S	ARM920T	XScale
Processor Speed	177 MHz	200 MHz	300/400 MHz	520 MHz
Memory Base Population	32 MB Flash	32 MB Flash	32 MB Flash	32 MB Flash
	32 MB RAM	16 MB RAM	32 MB RAM	64 MB RAM
Additional Population Options	Up to 128 MB Flash	Up to 128 MB Flash	Up to 2 GB Flash	None
	Up to 128 MB SDRAM	Up to 256 MB SDRAM	Up to 512 MB RAM	128 MB RAM
Power Req @ 3.3V (typ/max)	400 mA	600 mA	26/280 mA	190/350 mA
Power Over Ethernet (PoE)	Capable	Capable	Capable	Capable
Standard Operating Temp	0° C to 70° C	0° C to 70° C	-25° C to 75° C	-25° C to 75° C
Pins/Form Factor	120-pin HD (2)	120-pin HD (2)	120-pin HD (2)	100-pin HD (2)
10/100 Ethernet Support	MAC/PHY	MAC/PHY	10 Mbit MAC/PHY	MAC/PHY
UART	Up to 4	Up to 4	Up to 3	Up to 3
GPIO	Up to 55	Up to 50	Up to 75	Up to 75
SPI	•	•	•	•
I <sup>2</sup> C	•	•	•	•
USB Host/Device (2.0 Full Speed)	•	•	•	USB OTG
Integrated USB Connectors				
LCD Controller	•	•	•	•
Touch Controller	†	◦	•	•
I <sup>2</sup> S/AC97 Audio		◦	•	•
Special Features	<ul style="list-style-type: none"> <li>Extended temperature model available</li> </ul>	<ul style="list-style-type: none"> <li>PCI bus support</li> </ul>	<ul style="list-style-type: none"> <li>SD/SDIO</li> </ul>	<ul style="list-style-type: none"> <li>SD/SDIO</li> <li>PCMCIA/Compact Flash</li> <li>Memory stick/MMC</li> </ul>

Legend:

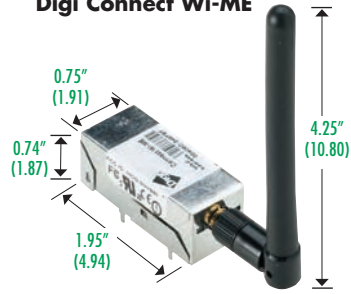
- Module Feature
- Dev Board Feature

† Application Kit Feature

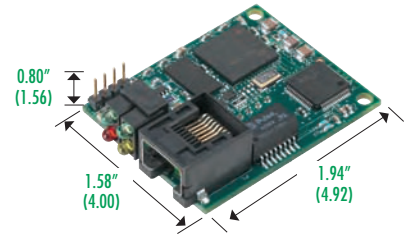
**Digi Connect ME**



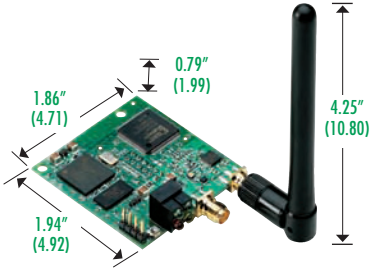
**Digi Connect Wi-ME**



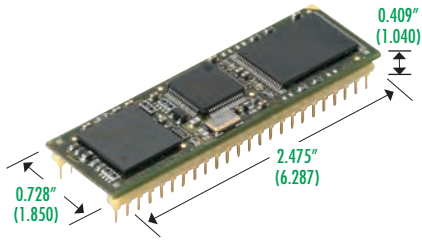
**Digi Connect EM**



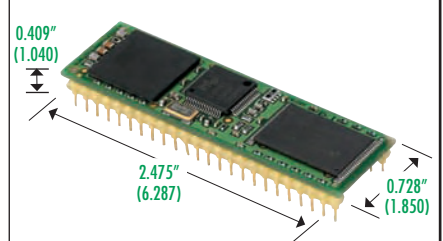
**Digi Connect Wi-EM**



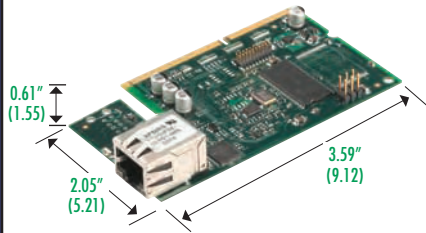
**ConnectCore 7U**



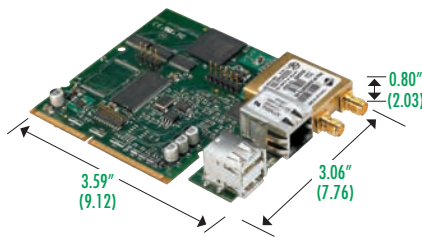
**ConnectCore 9U**



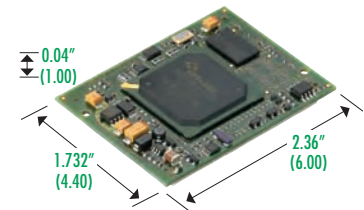
**ConnectCore 9C**



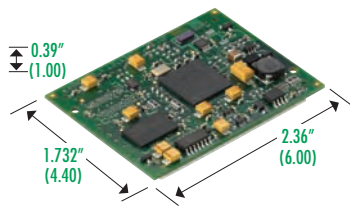
**ConnectCore Wi-9C**



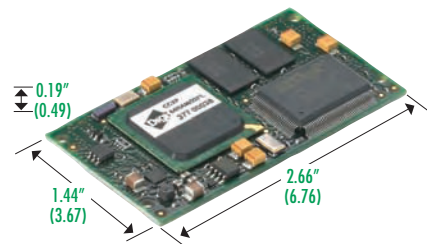
**ConnectCore 9P**



**ConnectCore 9M**



**ConnectCore XP**



Measurements:   inch  
                          (cm)

# Digi Connect ME® Family :: Wired & Wireless Embedded Modules

**Overview** :: Based on a common platform design approach, the Digi Connect ME and Digi Connect® Wi-ME embedded modules offer pin-compatible “drop-in” integration. This allows you to build future-proof products based on a single design supporting both wired 10/100Base-T and 802.11b wireless Ethernet connectivity. These connector-style modules include all the functionality you need in a single component solution to cost-effectively and easily implement in existing and new product designs, while powerful enough to meet your future product performance needs.



## + Features ::

- Highly integrated 32-bit network co-processor module
- Family of interchangeable and pin-compatible solutions
- 2/4 MB Flash and 8MB RAM
- High-speed serial interface with up to 230 kbps throughput
- 5 shared GPIO port options
- 10/100 Mbit Ethernet or 802.11b WLAN with WPA2/802.11i security
- Fully pre-certified radio reduces overall design cost/risk and time-to-market
- Industrial operating temp and FCC Class B low-emission design
- NIST-certified 256-bit AES encryption based on SSL 3.0/TLS 1.0
- ThreadX-based NET+OS® software development platform
- Digi’s plug-and-play firmware option eliminates software development effort
- Designed with Digi’s own ARM processor and WLAN technology for true long-term product availability
- Seamless migration path to Digi NET+ARM system-on-chip
- RoHS compliant

## + Specifications ::

### Hardware

- 32-bit NET+ARM high-performance RISC processor (NS7520 @ 55 MHz)
- On-board memory: 2/4 MB (wired) or 4 MB (wireless) Flash and 8 MB RAM
- On-board power supervisor
- 1 high-speed TTL serial interface
  - Up to 230 Bps (921 Kbps optional available)
  - Full signal for TXD, RXD, RTS, CTS, DTR, DSR and DCD
  - Hardware and software flow control
- 5 shared General Purpose Input/Output (GPIO) ports
- LEDs for link integrity, diagnostic, serial activity and network activity
- Operating temperature
  - Digi Connect ME: -40° C to 85° C (-40° F to 185° F)
  - Digi Connect Wi-ME: -30° C to 75° C (-22° F to 167° F)
- 2.4 MHz RP-SMA dipole antenna sold separately (Digi Connect Wi-ME)
- Wave-solderable design (no clean flux process)

### Network Interface - Digi Connect ME

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

### Network Interface - Digi Connect Wi-ME

- Standard: IEEE 802.11b
- Frequency: 2.4 GHz
- Data rate: Up to 11 Mbps with automatic fallback
- Modulation: CCK (11/5 Mbps), DQPSK (2 Mbps), DBPSK (1 Mbps)
- Transmit power: 16 dBm typical
- Receive sensitivity: -82 dBm @11 Mbps
- Antenna connector: 1 x RP-SMA

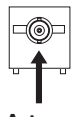
See page 165 for antennas.

Digi Connect ME - Back



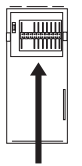
Ethernet

Digi Connect Wi-ME - Front



Antenna

Digi Connect ME - Bottom



Serial Interface Connector

Digi Connect Wi-ME - Bottom



Serial Interface Connector



## Power and Device Interface Connector Pin Assignments :: Product

PIN #	Signal
1*	VETH+
2*	VETH-
3-6	—
7	RXD
8	TXD
9	RTS/GPIO 4
10	DTR/GPIO 5
11	CTS/GPIO 2
12	DSR/GPIO 3
13	DCD/GPIO 1
14	RESET
15	+3.3V
16	GND
17-19	—
20	/INIT

Digi Connect ME  
Digi Connect Wi-ME

### Part Numbers ::

\* Positions 1 and 2 apply to Digi Connect ME only.

Worldwide

#### Modules with Plug-and-Play Firmware

Digi Connect ME w/2 MB Flash, 8 MB RAM (single-unit pack)	DC-ME-01T-S
Digi Connect ME w/2 MB Flash, 8 MB RAM (10-unit pack)	DC-ME-01T-S-10
Digi Connect ME w/2 MB Flash, 8 MB RAM (50-unit pack)	DC-ME-01T-S-50
Digi Connect Wi-ME (single-unit pack with antenna)	DC-WME-01T-S
Digi Connect Wi-ME (10-unit pack with antennas)	DC-WME-01T-S-10
Digi Connect Wi-ME (50-unit pack with antennas)	DC-WME-01T-S-50

#### Modules for Custom Applications with NET+OS

Digi Connect ME w/2 MB Flash, 8 MB RAM (single-unit pack)	DC-ME-01T-C
Digi Connect ME w/4 MB Flash, 8 MB RAM (single-unit pack)	DC-ME4-01T-C
Digi Connect ME w/2 MB Flash, 8 MB RAM (10-unit pack)	DC-ME-01T-C-10
Digi Connect ME w/4 MB Flash, 8 MB RAM (10-unit pack)	DC-ME4-01T-C-10
Digi Connect ME w/2 MB Flash, 8 MB RAM (50-unit pack)	DC-ME-01T-C-50
Digi Connect ME w/4 MB Flash, 8 MB RAM (50-unit pack)	DC-ME4-01T-C-50
Digi Connect Wi-ME (single-unit pack with antenna)	DC-WME-01T-C
Digi Connect Wi-ME (10-unit pack with antennas)	DC-WME-01T-C-10
Digi Connect Wi-ME (50-unit pack with antennas)	DC-WME-01T-C-50

#### Modules for Custom Applications Using Microsoft .NET Micro Framework

Digi Connect ME w/8 MB SDRAM, 2 MB Flash, for .NET Micro Framework for development use with Visual Studio (single-unit pack)	DC-ME-01T-MF2-VS
Digi Connect ME w/8 MB SDRAM, 2 MB Flash, for .NET Micro Framework (single-unit pack)	DC-ME-01T-MF2
Digi Connect ME w/8 MB SDRAM, 2 MB Flash, .NET Micro Framework (10-unit pack)	DC-ME-01T-MF2-10
Digi Connect ME w/8 MB SDRAM, 2 MB Flash, .NET Micro Framework (50-unit pack)	DC-ME-01T-MF2-50

Single-unit and bulk packs include modules only. Please order Integration Kits/Digi JumpStart Kits for product evaluation and development purposes.

Modules for Microsoft .NET Micro Framework include .NET Micro Framework license.

See page 64 for Digi JumpStart Kits and page 63 for Integration Kits.

See page 165 for accessories.

# Digi Connect EM<sup>®</sup> Family :: Wired and Wireless Embedded Modules

**Overview** :: Digi Connect EM and Digi Connect Wi-EM are pin-compatible, interchangeable embedded modules that deliver cost-effective and easy-to-implement wired and wireless Ethernet network connectivity. These board-mount modules feature pin-headers for a variety of connector options and an SPI port, as well as a lower profile, higher data rate and more Flash memory than the Digi Connect ME<sup>®</sup> family. Easily web- and network-enable any electronic device with these flexible embedded modules.



## + Features ::

- Highly integrated 32-bit network co-processor module
- Pin-compatible single component solutions
- 4 MB Flash and 8MB RAM on board
- 2 high-speed serial interfaces
- Shared SPI and 9 shared
- GPIO option
- 10/100 Mbit Ethernet or 802.11b WLAN with WPA2/802.11i security
- Fully pre-certified radio reduces overall design cost/risk and time-to-market
- Industrial operating temperature and FCC Class B compliant low-emission design
- NIST-certified 256-bit AES encryption based on SSL/TLS
- ThreadX-based NET+OS<sup>®</sup> software development platform
- Digi plug-and-play firmware option eliminates software development effort
- Digi's own ARM processor and WLAN technology for true long-term product availability
- Seamless migration path to Digi NET+ARM system-on-chip

## + Specifications ::

### Hardware

- 32-bit NET+ARM high-performance RISC processor (NS7520 @ 55 MHz)
- On-board memory: 4 MB Flash and 8 MB RAM
- On-board power supervisor
- 2 high-speed TTL serial interfaces
  - Throughput up to 230 Kbps
  - Full signal support for TXD, RXD, RTS, CTS, DTR, DSR and DCD on port 1
  - TXD/RXD signals support on port 2
  - Hardware and software flow control
- SPI port option
- 9 shared General Purpose Input/Output (GPIO) ports
- Wave-solderable design (no clean flux process)
- LEDs for link integrity, diagnostic, serial activity and network activity
- Operating temperature
  - Digi Connect EM: -40° C to 85° C (-40° F to 185° F)
  - Digi Connect Wi-EM: -30° C to 75° C (-22° F to 167° F)
- 2.4 MHz RP-SMA dipole antenna sold separately (Digi Connect Wi-EM)

### Network Interface - Digi Connect EM

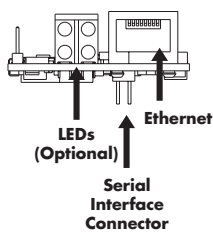
- Standard: IEEE 802.3
- Physical Layer 10/100Base-T
- Data rate: 10/100Mbps (auto-sensing)
- Mode: Full or half duplex (auto-sensing)
- Connector RJ-45 or pin-header

### Network Interface - Digi Connect Wi-EM

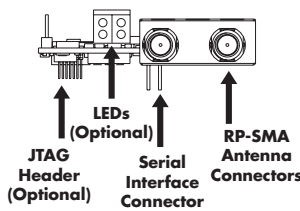
- Standard: IEEE 802.11b
- Frequency: 2.4 GHz
- Data rate: Up to 11 Mbps with automatic fallback
- Modulation: CCK (11/5 Mbps), DQPSK (2 Mbps), DBPSK (1 Mbps)
- Transmit power: 16 dBm typical
- Receive sensitivity: -82 dBm @11 Mbps
- Antenna connector: 2 x RP-SMA

See page 165 for antennas.

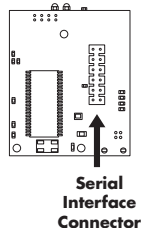
Digi Connect EM



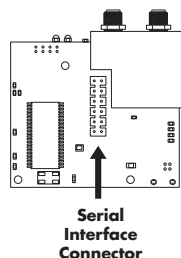
Digi Connect Wi-EM



Digi Connect EM - Bottom



Digi Connect Wi-EM - Bottom



## Power and Serial Interface Connector Pin Assignments

:: Product

PIN #	Signal
1	+3.3V
2	GND
3	RXD/GPIO-7
4	TXD/GPIO-6
5	RTS/GPIO-4/SPI_CLK
6	DTR/GPIO-5
7	CTS/GPIO-2
8	DCD/GPIO-1/SPI_EN
9	DSR/GPIO-3
10	/RST
11	RXD/GPIO-9
12	TXD/GPIO-8

Digi Connect EM  
Digi Connect Wi-EM

## Part Numbers ::

Worldwide

### Modules with Plug-and-Play Firmware

Digi Connect EM w/LED array and RJ-45 connector (single-unit pack)	DC-EM-02T-S
Digi Connect EM w/LED array and RJ-45 connector (25-unit pack)	DC-EM-02T-S-25
Digi Connect EM w/pin headers (single-unit pack)	DC-EM-02T-NS
Digi Connect EM w/pin headers (25-unit pack)	DC-EM-02T-NS-25
Digi Connect Wi-EM w/LED array (single-unit pack w/o antennas)	DC-WEM-02T-S
Digi Connect Wi-EM w/LED array (25-unit pack w/o antennas)	DC-WEM-02T-S-25

### Modules for Custom Applications Using NET+OS

Digi Connect EM w/LED array and RJ-45 connector (single-unit pack)	DC-EM-02T-C
Digi Connect EM w/LED array and RJ-45 connector (25-unit pack)	DC-EM-02T-C-25
Digi Connect EM w/pin headers (single-unit pack)	DC-EM-02T-NC
Digi Connect EM w/pin headers (25-unit pack)	DC-EM-02T-NC-25
Digi Connect Wi-EM w/LED array (single-unit pack w/o antennas)	DC-WEM-02T-C
Digi Connect Wi-EM w/LED array (25-unit pack w/o antennas)	DC-WEM-02T-C-25
Digi Connect Wi-EM w/pin headers (single-unit pack w/o antennas)	DC-WEM-02T-NC
Digi Connect Wi-EM w/pin headers (25-unit pack w/o antennas)	DC-WEM-02T-NC-25

Single-unit and bulk packs include modules only. Please order Integration Kits/Digi JumpStart Kits for product evaluation and development purposes.

See page 64 for Digi JumpStart Kits and page 63 for Integration Kits.  
See page 165 for accessories.

# ConnectCore™ 7U and ConnectCore 9U :: ARM-Based Modules

**Overview** :: The ConnectCore 7U is based on the NET+ARM NS7520 processor, with a 32-bit ARM7TDMI core. It offers an integrated Ethernet connection and a variety of connection options for system peripherals in an ultra-compact and economical 48-pin DIP package. It is ideal as the core of a networked product that requires more features than a Digi Connect ME® or Digi Connect EM® module. The Digi JumpStart Kit™ for NET+OS® is available for the ConnectCore 7U. Linux support is available for both the ConnectCore 7U and ConnectCore 9U.



## + Features ::

- Core processor module in compact 48-pin DIP form factor
- Powerful 32-bit ARM processors
- Integrated 10/100 Ethernet MAC/PHY
- Up to 2 high-speed serial ports – UART and SPI (Master) configurations
- Standard mode I<sup>2</sup>C software interface
- 16 shared GPIO port options
- External memory bus interface
- Software design flexibility through royalty-free development platforms

## + Specifications ::

### Hardware - ConnectCore 7U

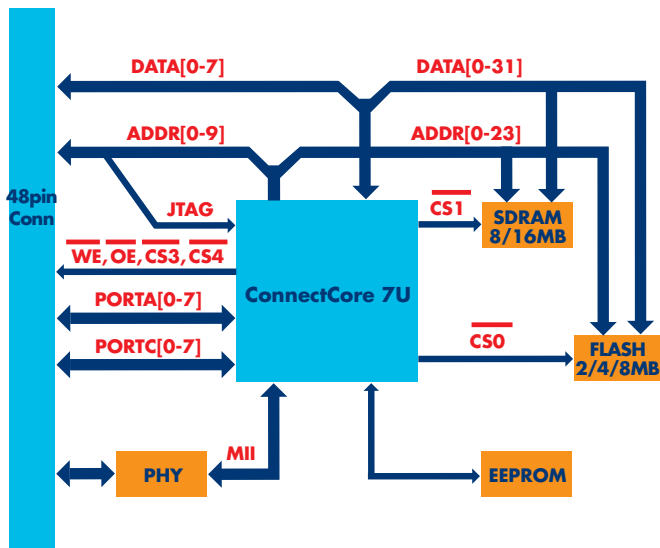
- 32-bit NET+ARM NS7520 @ 55 MHz ARM7TDMI core
- 2/8 MB Flash and 16 MB RAM onboard
- Integrated 10/100 Mbps Ethernet MAC/PHY
- 2 serial interfaces
  - UART mode w/data rates up to 230 Kbps
  - SPI mode (Master only)
- 8 KB serial EEPROM for configuration storage
- Standard mode I<sup>2</sup>C software bus interface (100 kHz)
- External memory bus interface
- 2 independent 27-bit timers (IRQ/FIQ, 2 microseconds to 20 hours)
- On-board JTAG interface
- Operating temperature range: 0° C to 70° C
- Industrial temperature module available

### Hardware - ConnectCore 9U

- 32-bit processor Atmel AT91RM200 @ 160 MHz
- 16 MB Flash and 32 MB RAM on-board
- Integrated 10/100 Mbps Ethernet MAC/PHY
- 2 serial interfaces
- USB 2.0 compliant full speed Host and Device interfaces

### Network Interface

- Standard: IEEE 802.3
- Physical layer: 10/100Base-T
- Data rate: 10/100 Mbps (auto-sensing)
- Mode: Full or half duplex (auto-sensing)



## Part Numbers ::

Worldwide

### Modules

ConnectCore 7U module w/2 MB Flash and 16 MB RAM, for NET+OS development	CC-7U-Z111
ConnectCore 7U module w/8 MB Flash and 16 MB RAM, for NET+OS development	CC-7U-Z113
ConnectCore 7U w/2 MB Flash and 16 MB RAM, for Linux development	FS-355
ConnectCore 7U w/8 MB Flash and 16 MB RAM, for Linux development	FS-352
ConnectCore 9U w/16 MB Flash and 32 MB RAM	FS-373

See page 65 for Digi JumpStart Kits.

# ConnectCore™ 9C and ConnectCore Wi-9C :: ARM-Based Modules

**Overview ::** The ConnectCore 9C and ConnectCore Wi-9C are highly integrated, compact SO-DIMM form factor core modules based on the powerful NET+ARM NS9360 ARM9 processor. The modules combine main processing functionality with on-board secure wireless and wired network connectivity. The modules are pin-compatible; the ConnectCore 9C includes connectors for USB and an RJ-45 for 10/100 Ethernet, while the ConnectCore Wi-9C adds 802.11b/g wireless networking support. The modules can be ordered with or without any of these connectors.

## + Features ::

- Compact SO-DIMM form factor
- Powerful 32-bit NS9360 w/ARM926EJ-S core
- Up to 256 MB Flash/128 MB SDRAM
- 802.11b/g or 802.11a/b/g with strong WPA2/802.11i security
- 10/100 Mbit Ethernet interface
- I/O connectivity options: USB, UART, I<sup>2</sup>C, SPI, PWM, GPIO
- On-chip LCD controller
- Industrial operating temperature
- Pre-certified radio reduces cost, design risk and time to market
- FCC Class B compliant low emissions design
- Population options for unique design flexibility
- Complete embedded software platform offering with support and design services: ThreadX-based NET+OS®, Microsoft Windows Embedded CE 6.0, Embedded Linux

## + Specifications ::

### Hardware

- NET+ARM 32-bit NS9360 high-performance RISC processor @ 155 MHz
- Up to 256 MB Flash and 128 MB SDRAM
- Up to 4 serial and SPI ports
- I<sup>2</sup>C v1.0 bus interface
- USB 2.0 host/device full speed interface
- On-chip LCD controller for TFT / STN LCD
- Up to 8 programmable timers/counters
- Up to 4 PWM functions
- 4 programmable external interrupts
- Up to 55 shared General Purpose
- Input/Output (GPIO) ports
- Real-time clock

### Network Interface - Wired

- Standard: IEEE 802.3

+

+

## + Specifications ::

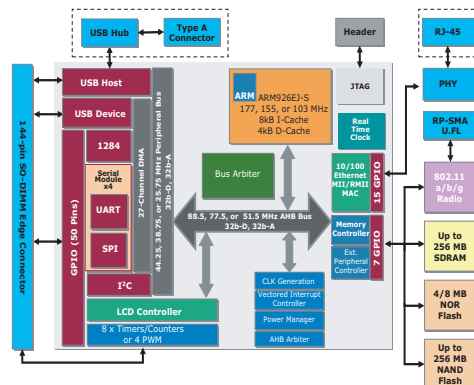
- Physical layer: 10/100Base T
- Data rate: 10/100 Mbps (auto-sensing)
- Mode: Full or half duplex (autosensing)
- Connector: RJ-45 with magnetics (optional)

### Network Interface - Wireless

- Standard: IEEE 802.11b/g
  - Frequency: 2.4 GHz
  - Data rate: Up to 54 Mbps w/fallback
- Connector: 1/2 x RP-SMA or 2 x U.FL
- Operating temperature range:
  - ConnectCore 9C: -40° C to 85° C
  - ConnectCore Wi-9C: -30° C to 75° C

### Wireless Security (NET+OS)

- WEP (Wired Equivalent Privacy)
- 64/128-bit encryption (RC4)
- WPA/WPA2/802.11i
- 128-bit TKIP/CCMP(AES) encryption
- 802.1x EAP authentication
  - LEAP (WEP only), PEAP, TTLS, TLS
  - GTC, MD5, OTP, PAP, CHAP, MSCHAP,
- MSCHAPv2, TTLS-MSCHAPv2
  - Pre-shared key mode (PSK)



## Part Numbers ::

Worldwide

### Modules

ConnectCore 9C w/4 MB Flash, 16 MB SDRAM, USB, Ethernet	CC-9C-V212-Z6
ConnectCore 9C w/4 MB Flash, 16 MB SDRAM, USB, Ethernet only	CC-9C-V212-ZA
ConnectCore 9C w/4 MB Flash, 16 MB SDRAM, no on-module connectors	CC-9C-V212-Z1
ConnectCore Wi-9C, 16 MB SDRAM, 4 MB Flash, USB, Ethernet, 2 x RP-SMA antenna connectors (antennas not included)	CC-W9C-V212-Y9

Additional population options available. Please contact Digi for more information.

See page 66 for Digi JumpStart Kits.

# ConnectCore™ 9P 9360 :: Embedded Modules



**Overview ::** Built on Digi's leading 32-bit NET+ARM technology, the network-enabled ConnectCore 9P 9360 provides a modular and scalable core processor solution in a compact form factor that significantly minimizes software and hardware design risk and dramatically improves the time-to-market aspects of your product development process. The wide range of available embedded software platform options (NET+OS, Linux, Microsoft Windows Embedded CE 6.0) makes the ConnectCore 9P 9360 the ideal choice for rapid development of your network-enabled products.

## + Features ::

- 240-pin core processor module in compact 60 x 44 mm form factor
- Powerful 32-bit NS9360 NET+ARM processor with ARM926EJ-S core
- Up to 128 MB Flash/128 MB RAM
- On-board 10/100 Ethernet MAC/PHY
- Up to 4 high-speed serial ports
  - UART and SPI configurations
- USB host and device mode support
- Fast-mode I<sup>2</sup>C hardware interface
- On-chip LCD controller (TFT/STN)
- Integrated real-time clock w/support for external battery
- Up to 73 shared GPIO port options
- External memory bus interface
- Complete software support for NET+OS, Linux and Microsoft Windows Embedded CE 6.0

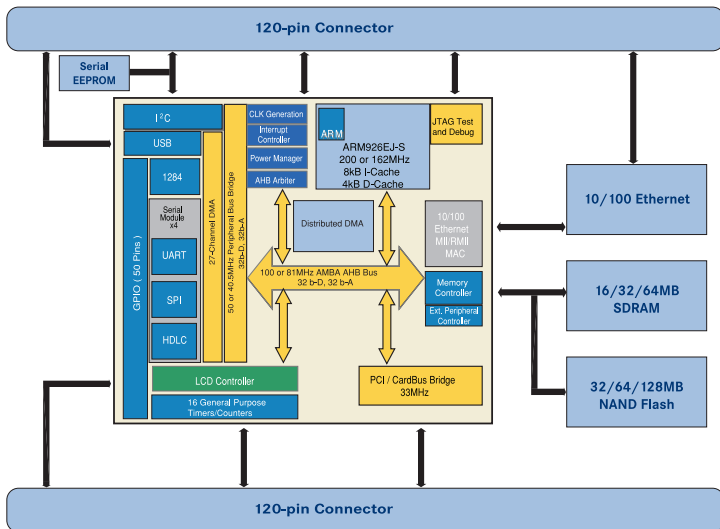
## + Specifications ::

### Hardware

- 32-bit NET+ARM (ARM926EJ-S) RISC processor NS9360 @ 177 MHz
- Up to 128 MB NAND Flash and 512 MB SDRAM
- 8 General Purpose Timers/Counters or 4 PWM functions
- Up to 73 GPIO port options
- Integrated 10/100 Mbps Ethernet MAC/PHY
- Up to 4 serial interfaces w/UART and SPI mode
- Integrated USB 2.0 compliant host/device interface
  - Full speed (12 Mbps) and low speed (1.5 Mbps) mode
- On-chip I<sup>2</sup>C bus interface (100/400 kHz)
- Flexible LCD controller with support for TFT/STN displays
  - Up to SVGA resolution with up to 18/24 bpp
- External memory bus interface
  - 32-bit data bus and 28-bit address bus
- Real-Time Clock (RTC) w/support for external battery backup
- 8 KB serial EEPROM for configuration storage
- On-board JTAG interface

### Network Interface

- Standard: IEEE 802.3
- Physical layer: 10/100Base-T
- Data rate: 10/100 Mbps (auto-sensing)
- Mode: Full or half duplex (auto-sensing)



## Part Numbers ::

Worldwide

### Modules

ConnectCore 9P 9360 w/32 MB Flash and 32 MB RAM	CC-9P-T225-Z1
ConnectCore 9P 9360 Module, 64 MB SDRAM, 64 MB Flash	CC-9P-T236-Z1
ConnectCore 9P 9360 Module 64 MB SDRAM, 128 MB Flash	CC-9P-T237-Z1

Additional population options available. Please contact Digi for more information.

See page 67 for Digi JumpStart Kits.

**Overview** :: The ConnectCore 9M is a powerful ARM9-based core module that enables OEMs to design in core processing functionality with a single, high-performance solution. The module features a high performance 400 MHz ARM920T core that requires very low power. It is ideal for mobile devices, such as automotive or remote instrumentation, or products situated in remote locations that operate of battery or solar power. The module can be put into an “idle mode” to reduce power consumption further when the product is inactive.



## + Features ::

- High-performance core processor module in compact form factor
- Powerful 32-bit RISC processor with on-chip peripheral options
- 300/400 MHz Samsung S3C2440 microprocessor with ARM920T core
- Very low-power operation modes with Dynamic Voltage Scaling
- Up to 2 GB Flash and 512 MB SDRAM
- Optional 10 Mbit Ethernet MAC/PHY
- Strong multimedia capabilities with integrated LCD and touch screen controller and audio interfaces
- USB host/device support
- Memory/expansion card interfaces
- Complete embedded software platform offering with support and design services
- Microsoft Windows CE and Linux Development Kits available

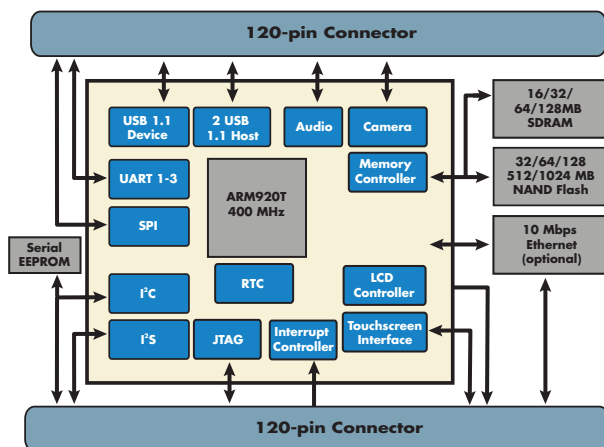
## + Specifications ::

### Hardware

- 32-bit Samsung S3C2440 ARM920T high-performance RISC processor @400 or 300 MHz
- Up to 2 GB NAND Flash and 512 MB SDRAM on-board
- 1024-bit 1-Wire® EEPROM
- Optional 10 Mbps Ethernet MAC/PHY (Cirrus Logic CS8900A)
- On-chip LCD controller for TFT/STN LCD panels
  - Up to VGA (640x480) resolution w/up to 24bpp color depth
- On-board USB 1.1 host/device
  - Full speed (12 Mbps) and low speed (1.5 Mbps) modes
- 3 RS-232 interfaces
- SD/SDIO Card interface
- One I<sup>2</sup>C bus interface w/fast mode (400 KHz) support
- I<sup>2</sup>S interface and AC'97 audio controller
- 32-bit external memory bus interface
- Up to 75 GPIO port options
- On-board JTAG interface

### Network Interface

- Standard: IEEE 802.3
- Physical layer: 10 Base-T
- Data rate: 10 Mbps (auto-sensing)
- Mode: Full duplex



## Part Numbers ::

Worldwide

### Modules

ConnectCore 9M 2440 Module w/32 MB SDRAM 32 MB Flash, no Ethernet	FS-3007
ConnectCore 9M 2440 Module w/128 MB SDRAM 128 MB Flash, no Ethernet	FS-3003
ConnectCore 9M 2440 Module w/32 MB SDRAM 32 MB Flash, 10 Mbps Ethernet	FS-372
ConnectCore 9M 2440 Module w/64 MB SDRAM 64 MB Flash, 10 Mbps Ethernet	FS-3006
ConnectCore 9M 2440 Module w/128 MB SDRAM 128 MB Flash, 10 Mbps Ethernet	FS-385

Additional population options available. Please contact Digi for more information.

See page 68 for Development Kits.



**Overview ::** The ConnectCore XP module introduces high-performance Marvell XScale® technology to the ConnectCore family of network-enabled embedded core processor modules. It provides the core processor platform solution of choice for applications demanding the combination of scalable Intel PXA270 performance at speeds up to 520 MHz, on-chip video and audio capabilities, low power requirements, integrated network connectivity, and complete embedded software platform flexibility.

## + Features ::

- Marvell PXA270 processor with Marvell XScale microarchitecture core
- 64 MB SDRAM and 32 MB Intel StrataFlash®
- Wide variety of I/O connectivity options
- Strong multimedia capabilities w/LCD controller and audio interfaces
- Comprehensive USB 1.1 host/device interface support, plus USB 2.0 OTG
- Memory/expansion card interfaces
- External 32-bit memory bus interface
- Low-power requirements
- Complete Microsoft Windows CE and Embedded Linux software platform offering w/support and design services

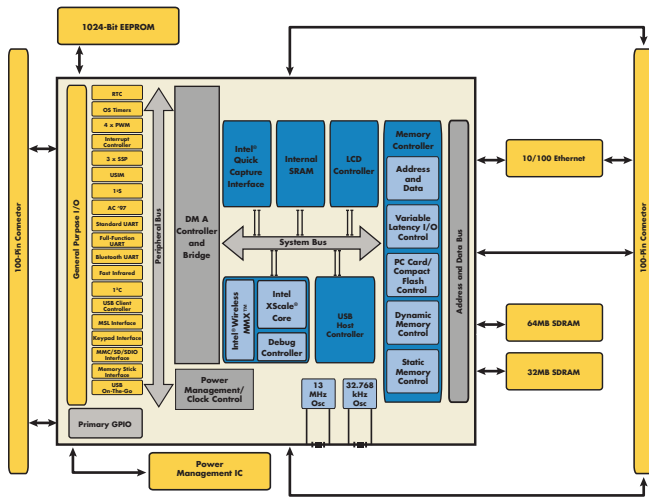
## + Specifications ::

### Hardware

- 32-bit Marvell XScale PXA270 high-performance RISC processor @ 520 MHz
- 32 MB Intel StrataFlash and 64 MB SDRAM on-board
- 1024-bit 1-Wire® EEPROM
- Integrated 10/100 Mbps Ethernet MAC/PHY
- On-chip LCD controller for TFT/STN LCD panels
  - Up to SVGA (800x600) resolution w/up to 24 bpp color depth
- On-board USB 1.1 host/device and USB 2.0 OTG interface
  - Full speed (12 Mbps) and low speed (1.5 Mbps) modes
- 2 SSP/NSSP ports
  - Synchronous Serial Protocol (SSP), Serial Peripheral Interface (SPI), Microwire, Programmable Serial Protocol (PSP) modes
- 1 full-function UART w/maximum data rate of 921kbps
  - TX, RX, RTS, CTS, DTR, DSR, DCD, RI
- 1 Bluetooth UART w/maximum data rate of 921kbps
  - TX, RX, RTS, CTS
- Fast Infrared Communications Port (FICP)
  - Up to 4 Mbps half-duplex operation
- I<sup>2</sup>C bus interface w/fast mode (400 KHz) support
- I<sup>2</sup>S interface and AC'97 audio controller
- 2 Pulse Width Modulator (PWM) signals
- Memory and expansion card interfaces
  - PCMCIA/CompactFlash®, SD/SDIO, MMC, and Memory Stick
- 32-bit external memory bus interface
- Up to 75 GPIO port options
- On-board JTAG interface

### Network Interface

- Standard: IEEE 802.3
- Physical layer: 10/100Base-T
- Data rate: 10/100 Mbps (auto-sensing)
- Mode: Full or half duplex (auto-sensing)



## Part Numbers ::

Worldwide

### Modules

ConnectCore XP 270 (520 MHz, 32 MB StrataFlash, 64 MB SDRAM)

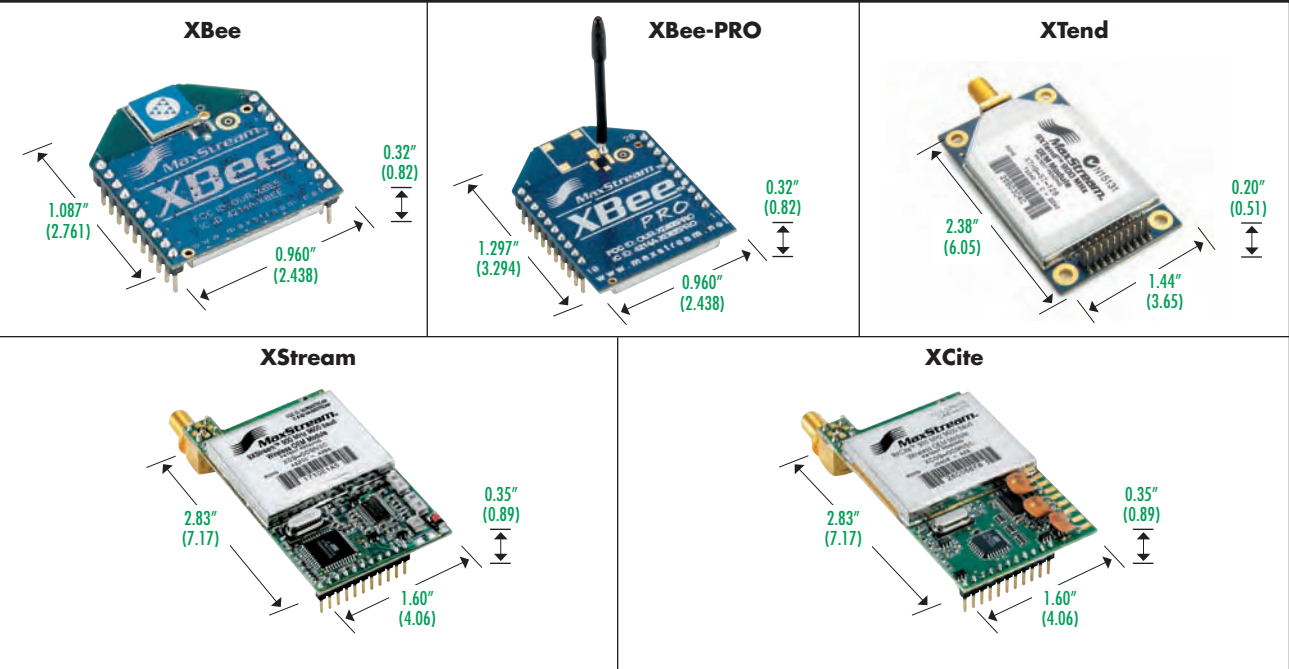
FS-377

See page 69 for Development Kits.



	XBee ZigBee (2.4 GHz) OEM RF Module		XBee-PRO ZigBee (2.4 GHz) OEM RF Module		XTend (900 MHz) OEM RF Module		9XStream (900 MHz) OEM RF Module		24XStream (2.4 GHz) OEM RF Module		XCite (900 MHz) OEM RF Module		
Transmit Power Outage	1 mW (0 dBm)		60 mW (18 dBm), 100 mW (20 dBm) EIRP		1 Watt (30 dBm)		100 mW (20 dBm)		50 mW (17 dBm)		4 mW (6 dBm)		
Indoor/Urban Range	up to 100 ft (30 m)		up to 300 ft (100 m)		up to 3000 ft (900 m)		up to 1500 ft (450 m)		up to 600 ft (180 m)		up to 300 ft (90 m)		
Outdoor RF Line-of-Sight Range	up to 300 ft (100 m)		up to 1 mi (1.6 km)		up to 14 miles (22 km)		up to 7 mi (11 km)		up to 3 mi (5 km)		up to 1000 ft (300 m)		
Outdoor RF Line-of-Sight Range (w/ high gain antenna)					up to 40 mi (64 km) @ 9600 bps RF data rate		up to 20 mi (32 km)		up to 10 mi (16 km)				
Serial Interface Data Rate (Software Selectable)	1200-115200 bps (non-standard baud rates also supported)				1200-230400 bps (non-standard baud rates also supported)		1200-57600 bps (non-standard baud rates also supported)				1200-57600 bps		
Throughput Data Rate	80000 bps				9600 bps	115200 bps	9600 bps	19200 bps	9600 bps	19200 bps	9600 bps	38400 bps	
RF Data Rate	250000 bps				10000 bps	125000 bps	10000 bps	20000 bps	10000 bps	20000 bps	10000 bps	41666 bps	
Receiver Sensitivity	-92 dBm (1% packet error rate)		-100 dBm (1% packet error rate)		-110 dBm	-100 dBm	-110 dBm	-107 dBm	-105 dBm	-102 dBm	-108 dBm	-104 dBm	
Serial Data Interface	3V CMOS UART interface				3V - 5V CMOS UART interface		5V CMOS UART interface				3V - 5V CMOS UART interface		
Frequency Range	2.405 - 2.480 GHz				905 - 925 MHz		910 - 917 MHz		2.45 - 2.46 GHz		910 - 917 MHz		
Channels (Software Selectable)	16 direct sequence channels		12 direct sequence channels		10 hop sequences share 50 frequencies		7 hop sequences share 25 frequencies				7 hop sequences or 25 single frequency channels		
Spread Spectrum Type	DSSS (Direct Sequence Spread Spectrum)				FHSS (Frequency Hopping Spread Spectrum)								
Encryption	AES 128-bit				AES 256-bit		N/A						
Supported Network Types	Point-to-point, point-to-multipoint, peer-to-peer & Mesh				Point-to-point, point-to-multipoint, peer-to-peer & repeater (XTend & XStream only)								
Supply Voltage	2.80 - 3.40 VDC regulated				2.80 - 5.50 VDC regulated		4.75 - 5.25 VDC regulated				2.85 - 5.50 VDC regulated		
Operating Current (Transmit)	45 mA (@ 3.3V)		215 mA (@ 3.3VDC)		90 mA (3.3V, 1 mW), 110 mA (5V, 1 mW), 730 mA (5 V, 1W)		150 mA (@ 5V)					55 mA (@ 2.85 V)	
Operating Current (Receive/Idle)	50 mA (@ 3.3V)		55 mA (@ 3.3V)		80 mA (@ 5V)		50 mA (@ 5V)					45 mA (@ 2.85 V), 55 mA (@ 5 V)	
Cyclic Sleep Current (when Sleeping)	< 50 µA (@ 3.0 V)				< 1.6 mA		< 76 µA (@ 5.0 V)				< 76 µA		
Pin Sleep Current	< 10 µA (@ 3.0 V)				<147 uA, <10 uA (Shutdown pin)		< 26 µA (@ 5.0 V)				< 20 µA		
Antenna Connector Options	U.FL connector, chip antenna or integrated whip antenna				RPSMA or MMCX		RPSMA, MMCX or integrated whip antenna				RPSMA or integrated whip antenna		
Operation Temperature	Industrial (-40° to 85° C)				Industrial or tested industrial (-40° to 85° C)		Commercial (0° to 70° C), industrial or tested industrial (-40° to 85° C)				Commercial (0° to 70° C) or industrial (-40° to 85° C)		
Agency & Industry Approvals	FCC, IC, ETSI, CID2, RoHS		FCC, IC, ETSI, CID2, RoHS		FCC, IC, CID2, RoHS		FCC, IC, CID2, RoHS		FCC, IC, ETSI, CID2, RoHS		FCC, IC, CID2, RoHS		





Measurements:   inch  
                          (cm)

**Overview** :: The XBee and XBee-PRO ZigBee OEM RF modules are ZigBee/IEEE 802.15.4 compliant solutions that offer low-cost, low-power mesh networking and other topologies needed for sensor networks, industrial automation, medical monitoring and other applications. The pin-for-pin compatible modules are easy-to-use, require minimal power and provide reliable delivery of critical data between devices. XBee and XBee-PRO are housed in a small form factor to save valuable board space.

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## + Features ::

- ZigBee/IEEE 802.15.4 compliant solution
- No configuration necessary for out-of-the-box RF operation
- Indoor/Urban range up to 100 feet (XBee) or 300 feet (XBee-PRO)
- Outdoor line-of-sight range up to 300 feet (XBee) or 1 mile (XBee-PRO)
- Advanced networking and low-power modes supported
- Superior receiver sensitivity
- Industrial operating temperature for demanding environments
- Performs retries and acknowledgments for reliable packet delivery
- Available with PCB chip antenna, 1/4 wave monopole integrated whip antenna, or U.FL antenna connector that allows for connection to a dipole or other external antenna
- RS-232 and USB interface packages available
- 1-year product warranty

## + Specifications ::

### Performance

- Transmit power output
  - XBee: 1mW (0 dBm)
  - XBee-PRO: 60 mW (18 dBm), 100 mW EIRP
- Indoor/Urban range
  - XBee: Up to 100 ft (30 m)
  - XBee-PRO: Up to 300 ft (100 m)
- Outdoor/RF line-of-sight range
  - XBee: Up to 300 ft (100 m)
  - XBee-PRO: Up to 1 mi (1.6 km)
- RF data rate: 250 Kbps
- Interface data rate: up to 115.2 Kbps
- Operating frequency: 2.4 GHz
- Receiver sensitivity
  - XBEE: -92 dBm
  - XBee-PRO: -100 dBm

## + Specifications cont. ::

### Networking

- DSSS (Direct Sequence Spread Spectrum)
- Networking topology: Peer-to-peer, point-to-point, point-to-multipoint and mesh (beta)
- Error handling: Retries and acknowledgements
- Filtration options: PAN ID, channel and addresses
- Direct sequence channel capacity
  - XBee: 16 (software selectable)
  - XBee-PRO: 12 (software selectable)
- Addressing: 65,000 network addresses available for each channel
- 64-bit IEEE 802.15.4 MAC address on each module
- Encryption: 128-bit AES

### Power

- Supply voltage: 2.8 - 3.4 V
- Transmit current
  - XBEE: 45 mA (@ 3.3 V)
  - XBee-PRO: 215 mA (@ 3.3 V)
- Receive current:
  - XBee: 50 mA (@ 3.3 V)
  - XBee-PRO: 55mA (@3.3 V)
- Power-down sleep current: <10  $\mu$ A

### General

- Frequency band: 2.405 - 2.480 GHz
- Serial data interface: 3V CMOS UART - No configuration required
- Antenna options: U.FL RF connector, chip antenna, whip antenna
- Operating temperature: -40° C to 85° C (industrial)
- Approved for use in the United States, Canada, Europe, Australia and Japan

We also offer the XBee™ XTender, which combines the strengths of the XBee-PRO™ and XTend™ product lines to provide a long-range backhaul (up to 40 miles line-of-sight with a high-gain antenna) for low-power XBee networks.

## Part Numbers ::

Worldwide

### Modules

Please see page 199 for part numbers.

See page 70 for XBee and XBee-PRO Development Kits.

**Overview** :: The XTend OEM RF module provides unprecedented range in a low-cost wireless data solution. The module is easy-to-use, requires minimal power and provides reliable delivery of critical data between devices. Due to innovations stamped in its design, the XTend Module supplies two- to eight-times the range of other modules operating within the unlicensed 900 MHz frequency band. The range gained by OEMs and integrators is due to proprietary technologies embedded into each module including superior RX sensitivity, interference immunity, and modulation/demodulation techniques.

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## + Features ::

- No configuration necessary for out-of-the-box RF operation
- Indoor/Urban range up to 3000 feet
- Outdoor line-of-sight range up to 40 miles
- Advanced networking and low-power modes supported
- Superior receiver sensitivity
- Advanced repeater and polling modes
- Industrial operating temperature for demanding environments
- Performs retries and acknowledgments for reliable packet delivery
- Available with standard MMCX or RPSMA connector
- RS-232 and USB interface packages available
- 1-year product warranty

## + Specifications ::

### Performance

- Transmit power output: 1 mW to 1 W (0 to 30 dBm), software selectable
- Indoor/Urban range: Up to 3000 ft (900 m)
- Outdoor/RF line-of-sight range: Up to 40 mi (64 km)
- RF data rate: 9.6 or 115.2 Kbps
- Interface data rate: up to 230.4 Kbps
- Operating frequency: 900 MHz
- Receiver sensitivity: -110 dBm (@9600 bps)

### Networking

- FHSS (Frequency Hopping Spread Spectrum)
- Networking topology: Peer-to-peer, point-to-point, point-to-multipoint and repeater
- Error handling: Retries and acknowledgements, multiple transmissions
- Filtration options: VID (Vendor ID Number), channels and addressing
- Frequency hopping channel capacity: 10 hop sequences share 50 frequencies
- Addressing: 65,000 network addresses available for each channel
- Encryption: 256-bit AES

### Power

- Supply voltage: 2.8 - 5.5 VDC regulated
- Transmit current: 730 mA (@ 5V, 1W TX Power Output)
- Receive current: 80 mA (@ 5V, 1W TX Power Output)
- Shutdown power current: 5  $\mu$ A typical

### General

- Frequency band: 905-925 MHz
- Serial data interface: 3V - 5V CMOS UART - No configuration required
- Antenna options: RPSMA or MMCX connections
- Operating temperature: -40° C to 85° C (industrial)
- Approved for use in the United States, Canada, Australia

We also offer XBee™ XTender, which combines the strengths of the XBee-PRO™ and XTend™ product lines to provide a long-range backhaul (up to 40 miles line-of-sight with a high-gain antenna) for low-power XBee networks.

## Part Numbers ::

Worldwide

### Modules

Please see page 199-200 for part numbers.

See page 71 for XTend Development Kits.

**Overview** :: The XStream OEM RF module provides OEMs and integrators with reliable, long-range wireless data communications. It is smaller than a credit card and is available as a 900 MHz (North America) and 2.4 GHz (worldwide) RF solution. The 9XStream (900 MHz) is pin-for-pin and software compatible with the 24XStream (2.4 GHz), allowing for flexible deployment of your products throughout the world – with only one OEM board design.

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## + Features ::

- No configuration necessary for out-of-the-box RF operation
- Indoor/Urban range up to 1500 feet (9XStream) or 600 feet (24XStream)
- Outdoor line-of-sight range up to 20 miles (9XStream) or 10 miles (24XStream)
- Advanced networking and low-power modes supported
- Superior receiver sensitivity
- Industrial operating temperature for demanding environments
- Performs retries and acknowledgments for reliable packet delivery
- Antenna options include RPSMA, MMCX and integrated whip antenna
- RS-232 serial, USB and RJ-11 telephone interface packages available
- 1-year product warranty

## + Specifications ::

### Performance

- Transmit power output
  - 9XStream: 100 mW (20 dBm)
  - 24XStream: 50 mW (17 dBm)
- Indoor/Urban range
  - 9XStream: Up to 1500 ft (450 m)
  - 24XStream: Up to 600 ft (180 m)
- Outdoor/RF line-of-sight range
  - 9XStream: Up to 20 mi (32 km)
  - 24XStream: Up to 10 mi (16 km)
- RF data rate: 9.6 or 19.2 Kbps
- Interface data rate: Up to 57.6 Kbps
- Operating frequency:
  - 9XStream: 900 MHz
  - 24XStream: 2.4 GHz
- Receiver sensitivity
  - 9XStream: -110 dBm (@9600 bps)
  - 24XStream: -105 dBm (@9600 bps)

## + Specifications cont. ::

### Networking

- FHSS (Frequency Hopping Spread Spectrum)
- Networking topology: Peer-to-peer, point-to-point, point-to-multipoint, repeater
- Error handling: Retries and acknowledgments
- Filtration options: VID (Vendor ID Number), channels, addressing
- Channel capacity: 7 hop sequences share 25 frequencies
- Addressing: 65,000 network addresses available for each channel

### Power

- Supply voltage: 5VDC regulated (+/- 0.25 V)
- Transmit current: 150 mA
- Receive current: 50 mA
- Power-down sleep current: 26  $\mu$ A

### General

- Frequency band:
  - 9XStream: 910-917 MHz
  - 24XStream: 2.45-2.46 GHz
- Serial data interface: 5V CMOS UART (no configuration required)
- Antenna options: RPSMA, MMCX, integrated whip antenna
- Operating temperature: -40° C to 85° C (industrial)
- Approved for use in the United States, Canada, Europe (2.4 GHz version)

## Part Numbers ::

Worldwide

### Modules

Please see page 198-199 for part numbers.

See page 71 for XStream Development Kits.

**Overview** :: The XCite OEM RF module is engineered to provide reliable low-cost wireless communications for OEMs and integrators. It is smaller than a credit card and supplies wireless links between devices that require minimal setup, power and cost. The module is optimized to operate in the ISM 900 MHz frequency bands for agency-approved use throughout North America. The 9XCite (900 MHz) is pin-for-pin and software compatible with the 9XStream (900 MHz) OEM RF module, allowing for flexible deployment of your products throughout the world – with only one OEM board design.

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**+ Features ::**

- No configuration necessary for out-of-the-box RF operation
- Indoor/Urban range up to 300 feet
- Outdoor line-of-sight range up to 1000 feet
- Advanced networking and low-power modes supported
- Superior receiver sensitivity
- Industrial operating temperature for demanding environments
- Available with RPSMA or integrated whip antenna
- RS-232 and USB interface packages available
- 1-year product warranty

**+ Specifications ::**

**Performance**

- Transmit power output: 4 mW (6 dBm)
- Indoor/Urban range: 300 ft (90 m)
- Outdoor/RF line-of-sight range: Up to 1000 ft (300 m)
- RF data rate: 9.6 or 38.4 Kbps
- Interface data rate: Up to 57.6 Kbps
- Operating frequency: 900 MHz
- Receiver sensitivity: -108 dBm (@9600 bps)

**Networking**

- FHSS (Frequency Hopping Spread Spectrum)
- Networking topology: Peer-to-peer, point-to-point, point-to-multipoint
- Filtration options: VID (Vendor ID Number), channels, addressing
- Channel capacity: 7 frequency hopping or 25 single frequency channels
- Addressing: 65,000 network addresses available for each channel

**Power**

- Supply voltage: 2.85 - 5.5 VDC regulated
- Transmit current: 55 mA (@ 2.85 V)
- Receive current: 45 mA (@ 2.85 V)
- Power-down sleep current: 20 µA

**General**

- Frequency band: 910-917 MHz
- Serial data interface: 3V/5V CMOS UART (no configuration required)
- Antenna options: RPSMA or integrated whip antenna
- Operating temperature: -40° C to 85° C (industrial)
- Approved for use in the United States, Canada

**Part Numbers ::**

Worldwide

**Modules**

Please see page 199 for part numbers.

See page 71 for XCite Development Kits.

# Digi Connect® Family :: Integration Kits

**Overview** :: Digi Integration Kits provide everything needed for evaluation, rapid prototyping and integration of Digi Connect embedded modules using the feature-rich and field-proven Digi plug-and-play firmware.

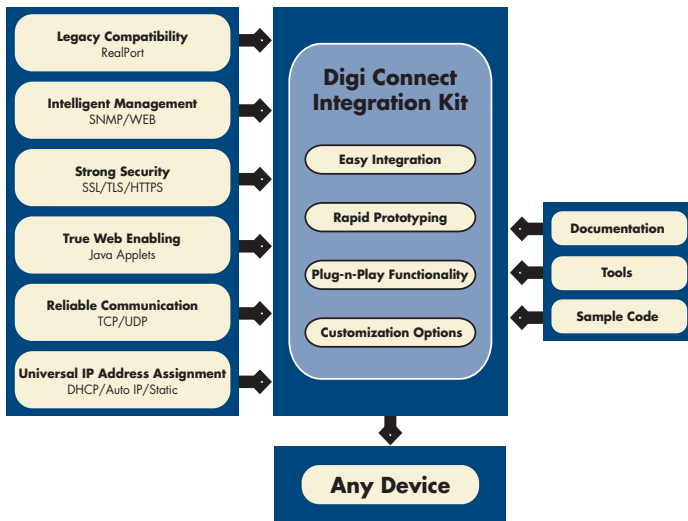
The Digi plug-and-play firmware in combination with the design of the Digi Connect ME® and Digi Connect® Wi-ME modules dramatically reduces time-to-market by eliminating time-consuming embedded hardware and software development. They deliver instant and fully transparent wired and wireless device server networking functionality for all existing and new product designs, and allow you to quickly network enable your products while focusing on your core product design competency.

Digi plug-and-play firmware offers industry-leading features that make it an ideal solution for every network-enabled application that requires ready-made versatility and performance.



## + Features ::

- Digi Connect ME or Digi Connect Wi-ME module
  - 4 MB Flash, 8 MB SDRAM, 2 dBi dipole antenna (Digi Connect Wi-ME)
- Development board
  - 1 RS-2323 serial port, GPIO configuration/test switches (hi/lo), screw terminal for GPIO signals, status LEDs (serial, GPIO, power), logic signal header, test points, reset button, 9-30VDC power supply w/Power-over-Ethernet support (mid-span), JTAG header and RS-232 console/debug port (JTAG modules)
- Digi Connect Integration Kit CD
  - Device discovery tool w/source code, device configuration wizard w/source code, RCI library, device discovery (ADDP) library, Java applet sample source code, C/C++ sample source code (TCP, UDP, SSL)
- Documentation
  - Getting started, hardware reference manual, development board schematics Digi Connect user's guide, command line reference, RCI specification
- Power supply and accessories
  - External wall power supply (110/240VAC to 12VDC @ 850 mA) with interchangeable outlet adapters (North America, EU, UK, and Australia), JTAG adapter, crossover serial cable, Ethernet cable (Digi Connect ME)



## Part Numbers ::

Worldwide

### Integration Kits

Digi Connect ME Integration Kit	DC-ME-01T-KT
Digi Connect Wi-ME Integration Kit	DC-WME-01T-KT
Digi Connect EM Integration Kit	DC-EM-02T-KT
Digi Connect Wi-EM Integration Kit	DC-WEM-02T-KT

Bulk packs and customer-specific packaging configurations available.

# Digi Connect® Family :: Digi JumpStart Kits™

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**Overview ::** The easy-to-use, cost-effective and complete Digi JumpStart Kits for NET+OS deliver a royalty-free turnkey solution for embedded software development based on the ThreadX Real-Time Operating System (RTOS).

With over 400 million deployments in products worldwide, ThreadX is one of the most reliable and field-proven RTOS solutions available. In addition to ThreadX, NET+OS provides the integrated building blocks needed to create secure and fully network-enabled product solutions using Digi embedded modules and microprocessors. This includes a dual-mode IPv4/IPv6 TCP/IP stack, integrated web server, SNMPv3, POP/SMTP mail, PPP, XML, LDAP, SSL/TLS, and support for enterprise-grade WPA2/802.11i wireless LAN security.

The Digi JumpStart Kit for NET+OS minimizes product design risks and dramatically shortens traditional time-to-market aspects of your C-based embedded product development by providing all needed software and hardware components right out of the box.

Digi ESP for NET+OS, an Eclipse-based Integrated Development Environment for use with Microsoft Windows, offers an easy-to-use graphical interface with editor, single-step debugging, managed make files, build environment, online help, and innovative features like the Digi project builder wizard. Through simple point-and-click operation it generates a completely functional, customized application framework with ready-to-use software components such as web-based network interface configuration, FTP-based firmware upgrade, SSL/TLS, serial and Telnet Command Line Interface (CLI), and more.

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## + Contents ::

- Digi Connect ME/Wi-ME, Digi Connect EM/WI-EM or Digi Connect SP/Wi-SP Ethernet/serial adapter
- Development board
  - 1 RS-2323 serial port, GPIO configuration/test switches (hi/lo), screw terminal for GPIO signals, status LEDs (serial, GPIO, power), logic signal header, test points, reset button, 9-30VDC power supply w/Power-over-Ethernet support (mid-span), JTAG header and RS232 console/debug port (JTAG modules)
- Digi JTAG link USB 2.0 hardware debugger
- Digi NET+OS® CD
  - NET+OS 7.x, Digi ESP IDE, Microcross GNU tools, BSP source code, sample code, Green Hills MULTI\* IDE support, documentation
- Documentation
  - Quick start guide, Digi ESP™ tutorial, NET+OS porting guide, NET+OS API documentation, Advanced Web Server, hardware reference manual, development board schematics
- Power supply and accessories
  - External wall power supply (110/240VAC to 12VDC @ 850 mA) with interchangeable outlet adapters (North America, EU, UK, and Australia), JTAG adapter, crossover serial cable, Ethernet cable (Digi Connect ME)

\* Requires purchase of third party product. See website for additional information.

## Part Numbers ::

Worldwide

### Digi JumpStart Kits

Digi Connect ME Digi JumpStart Kit for NET+OS	DC-ME-NET
Digi Connect Wi-ME Digi JumpStart Kit for NET+OS 7	DC-WME-NET
Digi Connect EM Digi JumpStart Kit for NET+OS 7	DC-EM-NET
Digi Connect Wi-EM Digi JumpStart Kit for NET+OS 7	DC-WEM-NET
Digi Connect SP Digi JumpStart Kit for NET+OS 7	DC-SP-NET
Digi Connect Wi-SP Digi JumpStart Kit for NET+OS	DC-WSP-NET

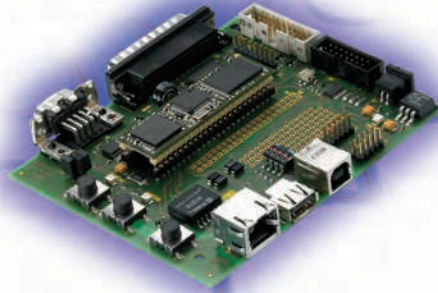
See pages 48-51 for modules.



**Overview** :: The ConnectCore 7U Digi JumpStart Kit provides immediate access to the features of the ConnectCore 7U embedded modules, allowing application development to begin immediately. The ConnectCore 7U Digi JumpStart Kit is based on NET+OS® 7. Linux support is available on request.

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## + Features ::



- Ideal for simple 10/100 networking applications with additional peripheral support
- ConnectCore 7U module included
- Powerful 32-bit RISC processor with on-chip peripheral options
- Digi JTAG Link included in Digi JumpStart Kit
- Development baseboard for immediate prototyping and application development
- Schematics included for custom baseboard design
- Support for NET+OS 7
- Digi NET+OS CD
  - NET+OS 7.x, Digi ESP™ IDE, Microcross GNU tools, BSP source code, sample code, Green Hills MULTI\* IDE support, documentation
- Documentation
  - Quick start guide, Digi ESP tutorial, NET+OS porting guide,
- NET+OS API documentation, Advanced Web Server, hardware reference manual, development board schematics
- Power supply and accessories
  - External wall power supply (110/240VAC to 12VDC @ 850 mA) with interchangeable outlet adapters (North America, EU, UK, and Australia), JTAG adapter, crossover serial cable, Ethernet cable

\* Requires purchase of third party product. See website for additional information.

## + Specifications ::



### ConnectCore 7U Digi JumpStart Kit

- ConnectCore 7U module
  - NET+ARM NS7520 32-bit 55 MHz with ARM7TDMI core
  - 16 MB SDRAM, 8 MB Flash
- Development board
  - 10/100 Ethernet networking support
- RJ-45 connector and pulse transformer
  - RS-232 connection for serial port 1
  - TTL connector for serial port 2
- Support for baud rates up to 250 Kbps
  - 14- and 20-pin JTAG interface for tool support
  - Serial LCD interface (no LCD included)
  - Prototyping area and module signal breakout
  - LEDs for power and communication
  - 2 switches for use by application
  - Manual reset switch/reset generator

### Network Interface (All Models)

- Standard: IEEE 802.3
- Physical layer: 10/100 Base-T
- Data rate: 10/100 Mbps (auto-sensing)
- Mode: Full or half duplex (auto-sensing)

## Part Numbers ::

Worldwide

### Digi JumpStart Kits

ConnectCore 7U Digi JumpStart Kit for NET+OS 7

CC-7U-NET

See page 52 for modules.

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**Overview ::** The ConnectCore 9C and ConnectCore Wi-9C Digi JumpStart Kits are designed to allow wireless application development within 30 minutes after installation begins. They are ideal for quickly integrating both wired and wireless networking into any product design, or for investigating embedded networking. The powerful ARM9 core includes enough processing power for both network and application processing, and the integrated peripherals include ample connectivity features, including LCDs. Kits for NET+OS, Microsoft Windows Embedded CE 6.0 and Linux are available.

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## + Features ::

- Ideal for high-performance embedded networking applications
- Integrated peripherals and LCD controller
- ConnectCore 9C or ConnectCore Wi-9C module included
- Powerful 32-bit RISC processor with on-chip peripheral options
- Development baseboard for immediate prototyping and application development
- Schematics included for custom baseboard design
- Support for NET+OS® 7, Linux and Microsoft Windows CE
- Power supplies and cables included

## + Specifications ::

- ConnectCore 9C/Wi-9C module
  - Digi NET+ARM NS9360 32-bit 155 MHz with ARM926EJ-S Core
  - 16 MB SDRAM, 4 MB Flash (NET+OS Kits)
  - 64 MB SDRAM, 128 MB Flash (Linux and Windows CE Kits)
- Digi ESP™ Eclipse-based Integrated Development Environment (NET+OS and Linux)
- Digi JTAG Link – JTAG debugger with USB 2.0 support (NET+OS only)
- Development board
  - 10/100 Ethernet networking support
- RJ-45 connector and transformer (on module)
  - 802.11b/g WLAN wireless networking support
- WLAN radio, transceiver and antenna(s) (on module)
  - 4 serial ports
- RS-232/422/485 connection for serial port 1 (DB-9)

## + Specifications cont. ::

- RS-232 for serial port 2 (DB-9)
- TTL connectors for serial ports 3 and 4
- Support for baud rates up to 921 Kbps
  - I<sup>2</sup>C and SPI header connectors
  - USB Host connectors (on module)
  - USB device connector (on development board)
  - VGA connector
  - LCD application board header (no LCD included)
  - Application expansion headers
  - Prototyping area and module signal breakout
  - 12-pin digital I/O connector
  - LEDs for power/serial/user applications
  - Reset switch

### Wired Network Interface

- Standard: IEEE 802.3
- Physical layer: 10/100 Base-T
- Data rate: 10/100 Mbps (auto-sensing)
- Mode: Full or half duplex (auto-sensing)
- Connector: RJ-45 with magnetics (on module)
- 802.3af POE Power pass-through (mid-span and end-span)

### Wireless Network Interface (ConnectCore Wi-9C Only)

- Standard: IEEE802.11b/g
- Frequency: 2.4 GHz
- Data rate: Up to 54 Mbps with fallback
- Transmit power: 16 dBm typical
- Receive sensitivity: -73 dBm @ 54 Mbps
- Connector: 1 or 2 x RP-SMA or 2 x U.FL
- Dual-diversity option

## Part Numbers ::

Worldwide

### Digi JumpStart Kits

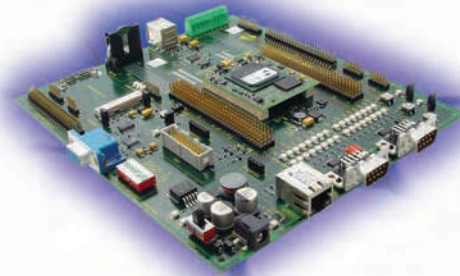
ConnectCore 9C Digi JumpStart Kit for NET+OS 7	CC-9C-NET
ConnectCore 9C Digi JumpStart Kit for Linux	CC-9C-LX
ConnectCore 9C Digi JumpStart Kit for Windows CE 6.x	CC-9C-CE6
ConnectCore Wi-9C Digi JumpStart Kit for NET+OS 7	CC-W9C-NET
ConnectCore Wi-9C Digi JumpStart Kit for Linux	CC-W9C-LX
ConnectCore Wi-9C Digi JumpStart Kit for Windows CE 6.x	CC-W9C-CE6

### LCD Application Kits

ConnectCore LCD Add-On Kit w/6.4" VGA and Touchscreen	CC-ACC-LCDV-64
ConnectCore LCD Add-On Kit w/5.7" QVGA and Touchscreen	CC-ACC-LCDQ-57

See page 53 for modules.

**Overview** :: ConnectCore 9P Digi JumpStart Kits are designed to allow embedded application development within 30 minutes after installation begins. The module has a powerful ARM9 core with enough processing power for both network and application processing, and the integrated peripherals include ample connectivity features, including LCD controllers. Support is available for NET+OS®, Microsoft Windows Embedded CE 6.0 and Embedded Linux.



## + Features ::

- Core module for high-performance embedded networking applications
- Compact size fits in wide variety of applications
- Powerful 32-bit RISC processor with integrated peripherals and LCD controller
- ConnectCore 9P module included
- Development baseboard for immediate prototyping and application development
- Schematics included for custom baseboard design
- Support for Digi's NET+OS, Microsoft Windows Embedded CE 6.0 and Embedded Linux
- All power supplies and cables included

## + Specifications ::

- ConnectCore 9P 9360 module:
  - NET+ARM NS9360 32-bit 155 MHz with ARM926EJ-S core
  - 64 MB SDRAM, 128 MB Flash (Linux and Windows CE Kits)
- Digi ESP™ Eclipse-based Integrated Development Environment (NET+OS and Linux)
- Digi JTAG Link – JTAG debugger with USB 2.0 support (NET+OS kits only)
- Development board
  - 10/100 Ethernet networking support
  - RJ-45 connector and transformer
  - 4 serial ports
- RS-232/422/485 connection for serial port 1 (DB-9)
- RS-232 for serial port 2 (DB-9)
- TTL connectors for serial ports 3 and 4
- Support for baud rates up to 921 Kbps
  - USB Host and Device connectors
  - I²C and SPI header connectors
  - VGA connector
  - LCD application board header (No LCD included)
  - Application expansion headers
  - Prototyping area and module signal breakout
  - 12-pin digital I/O connector
  - LEDs for power/serial/user applications
  - Reset switch

### Wired Network Interface

- Standard: IEEE 802.3
- Physical layer: 10/100 Base-T
- Data rate: 10/100 Mbps (auto-sensing)
- Mode: Full or half duplex (auto-sensing)
- Connector: RJ-45 with magnetics (on module)
- PoE capable

## Part Numbers ::

Worldwide

### Digi JumpStart Kits

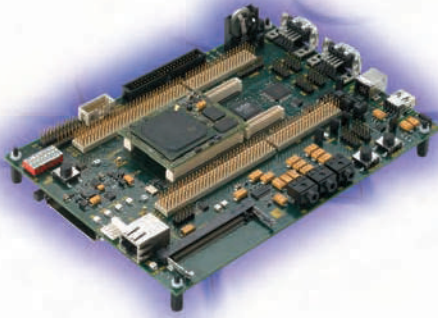
ConnectCore 9C Digi JumpStart Kit for NET+OS 7	CC-9P-NET
ConnectCore 9C Digi JumpStart Kit for Linux	CC-9P-LX
ConnectCore 9C Digi JumpStart Kit for Windows CE 6.x	CC-9P-CE6

### LCD Application Kits

ConnectCore LCD Add-On Kit w/6.4" VGA and Touchscreen	CC-ACC-LCDV-64
ConnectCore LCD Add-On Kit w/5.7" QVGA and Touchscreen	CC-ACC-LCDQ-57

See page 54 for modules.

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**Overview ::** The ConnectCore 9M Development Kit provides immediate access to the features of the ConnectCore 9M module and allows embedded application development to begin immediately. The ConnectCore 9M is best suited to applications which require high performance and low power, and where network connectivity is not a priority. Typical applications for the ConnectCore 9M are remote or mobile devices. Development Kits for Linux and Microsoft Windows CE 5.0 are available.

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## + Features ::

- Ideal for very low-power applications with extensive peripheral support required
- ConnectCore 9M module included
- Powerful 32-bit RISC processor with on-chip peripheral options
- Development baseboard for immediate prototyping and application development
- Schematics and bill of material included for custom baseboard design
- Support for Linux and Microsoft Windows CE 5.0
- All power supplies and cables included

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## + Specifications ::

- ConnectCore 9M module
  - Samsung S3C2440 32-bit 400 MHz with ARM920T core
  - 32 MB SDRAM, 32 MB Flash
- Digi JTAG Booster for flash memory reprogramming
- Development board
  - 10 Mbit Ethernet networking support
- RJ-45 connector and Pulse transformer
  - 2 - RS-232 interfaces
  - LCD interface (5.7" Sharp TFT LCD included)
  - Prototyping area and module signal breakout
  - USB connectors for host and device
  - CompactFlash type-II slot
  - SD Interface with normal type connector
  - Audio codec (UDA1341TS) with speaker jack and connector for microphone
  - CAN driver with 10-pin header
  - Connector for 5V power supply
  - JTAG 20-pin connector and 8-pin JTAG Booster connector
  - Two user buttons
  - LEDs for power and communication
  - 2 switches for use by application
  - Manual reset switch/reset generator

### Network Interface

- Standard: IEEE 802.3
- Physical layer: 10 Base-T
- Data rate: 10 Mbps (auto-sensing)
- Mode: Full or half duplex (auto-sensing)

## Part Numbers ::

Worldwide

### Development Kits

ConnectCore 9M Development Kit for Linux

FS-9071

ConnectCore 9M Development Kit for Microsoft Windows CE 5.0

FS-9093

See page 55 for modules.

**Overview** :: The ConnectCore XP Development Kit is ideal for demanding embedded applications that require both the high processor speed and low power demands of the ConnectCore XP. The ConnectCore XP module is based on the Marvell® XScale® PXA270. ConnectCore XP Development Kits are available with support for Linux and Microsoft Windows CE 5.0.

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## + Features ::

- Ideal for low-power applications with extensive peripheral support
- ConnectCore XP Module included
- Powerful 32-bit RISC XScale 520 MHz processor with on-chip peripheral options
- Development baseboard for immediate prototyping and application development
- Schematics and bill of material included for custom baseboard design
- Support for Linux and Microsoft Windows CE 5.0
- Power supply and cables included

## + Specifications ::

- ConnectCore XP module:
  - Marvell PXA270 32-bit 520 MHz with XScale core
  - 64 MB SDRAM, 32 MB Flash
- Digi JTAG Booster for flash memory reprogramming
- Development board
  - 10/100 Mbit Ethernet networking support
- RJ-45 connector and transformer
  - Serial and parallel ports
- DB-9 and DB-25 connectors
  - LCD Interface (5.7" Sharp TFT LCD included)
  - Prototyping area and module signal breakout
  - USB connectors for host and device
  - CompactFlash type-II slot
  - SD Interface with normal type connector
  - Connector for 5V power supply
  - JTAG 20-pin connector and 8-pin JTAG Booster connector
  - 2 user buttons

### Network Interface

- Standard: IEEE 802.3
- Physical layer: 10/100 Base-T
- Data rate: 10/100 Mbps (auto-sensing)
- Mode: Full or half duplex (auto-sensing)

## Part Numbers ::

Worldwide

### Development Kits

ConnectCore XP Development Kit for Linux

FS-9077

ConnectCore XP Development Kit for Microsoft Windows CE 5.0

FS-9090

See page 56 for modules.

# XBee™ and XBee-PRO™ :: Development Kits

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**Overview ::** The ZigBee/IEEE 802.15.4 compliant XBee and XBee-PRO modules are available in Development Kits, with a range of antenna options and RF cable assemblies. They include all of the hardware and software needed to rapidly create and test long-range wireless data links. Starter Kits with two modules and integrated whip antennas are also available. These kits provide an inexpensive means of experiencing the best in wireless data communications.

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## + Features ::

- Professional Development Kit include 3 XBee modules, 2 XBee-PRO modules and 5 development boards
- Starter Kits include two XBee or XBee-PRO modules and 2 development boards
- Antenna options include PCB chip antenna, 1/4 wave monopole integrated whip antenna, or U.FL antenna connector that allows for connection to a dipole or other external antenna
- All the necessary cables, software and accessories included
- Free unlimited technical support
- ZigBee/IEEE 802.15.4 compliant modules satisfy unique needs of low-cost, low-power wireless sensor networks
- 30-day satisfaction guarantee

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## + Specifications ::

### **XBee Professional Development Kit**

- 1 XBee-PRO OEM RF module with integrated whip antenna
- 1 XBee-PRO OEM RF module with U.FL RF Connector (to RPSMA antenna)
- 1 XBee module with chip antenna
- 1 XBee module with integrated whip antenna
- 1 XBee module with U.FL RF connector (to RPSMA antenna)
- 4 RS-232 development boards w/antenna clips
- 1 RS-232 cable
- 1 USB development board w/antenna clip
- 1 USB cable
- 2 half-wave, 4.5", dipole antennas w/RPSMA connectors
- 4 9V 1A power adapters
- 3 9V battery clips
- 1 serial loopback adapter
- 1 null modem adapter (male-to-male)
- 1 null modem adapter (female-to-female)
- 1 Quick Start Guide
- 1 CD (testing and configuration software and documentation)
- 2 RF cable assemblies (adapter for connecting RPSMA antenna to U.FL connector)

### **XBee and XBee-PRO Starter Kits**

- 2 XBee or XBee-PRO OEM RF modules with integrated whip antenna
- 1 RS-232 development board w/antenna clip
- 1 RS-232 cable
- 1 USB development board w/antenna clip
- 1 USB cable
- 1 9V 1A power adapter
- 1 9V battery clip
- 1 serial loopback adapter
- 1 Quick Start Guide
- 1 CD (testing and configuration software and documentation)

\* Development kits that are sent to international customers do not include a power supply.

## Part Numbers ::

Worldwide

### **Development Kits**

Please see page 199 for part numbers.

See page 59 for modules.

# XTend™, XStream™ and XCite™ :: Development Kits

**Overview** :: The XTend, XStream and XCite Development Kits include two RF modules with antenna options and all of the hardware and software needed to rapidly create and test long range wireless data links. Each Development Kit also includes free and unlimited access to our knowledgebase and responsive technical support team.



## + Features ::

- 2 RF modules included with antenna options
- All the necessary cables, software and accessories included
- Free unlimited technical support
- Low-cost radio modems provide unprecedented performance
- 30-day satisfaction guarantee

## + Specifications ::

### Development Kit Contents – Radio Modems

#### XTend

- 1 XTend OEM RF module w/RPSMA connector
- 1 XTend OEM RF module w/MMCX connector

#### XStream

- 1 XStream OEM RF module w/integrated whip antenna
- 1 XStream OEM RF module w/RPSMA connector

#### XCite

- 1 XCite OEM RF module w/RPSMA connector
- 1 XCite OEM RF module w/integrated wire antenna

### Development Kit Contents – Accessories

- 2 RS-232/RS-485/RS-422 interface boards
- 2 RS-232 cables
- 1 9V battery clip
- Power adapters
  - 2 9V 400 mA (XStream, XCite)
  - 2 9V 1A (XTend)
- 1 serial loopback adapter
- 1 null modem adapter (male-to-male)
- 1 null modem adapter (female-to-female)
- 1 RS-485/RS-422 adapter (female RJ-45 to male DB-9)
- 1 RS-485/RS-422 adapter (female RJ-45 to female DB-9)
- 1 quick start guide
- 1 CD with testing and configuration software, documentation and development tools

\* Development kits that are sent to international customers do not include a power supply.

## Part Numbers ::

Worldwide

### Development Kits

Please see page 198-200 for part numbers.

See pages 60-62 for modules.

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**Overview ::** NET+OS delivers a royalty-free solution for embedded software development based on the ThreadX Real-Time Operating System (RTOS). In addition to ThreadX, NET+OS provides the integrated building blocks needed to create secure and fully network-enabled product solutions using Digi embedded modules and microprocessors. This includes an IPv4/IPv6 capable TCP/IP stack, web server, SNMP, SSL/TLS, and support for WPA2/802.11i wireless LAN security.

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## + Features ::

- Based on Express Logic ThreadX Real-Time Operating System
- Includes TCP/IP stack and extensive device networking protocol applications
- Specifically optimized for Digi embedded modules and microprocessors with comprehensive toolset across all Digi hardware platforms
- Royalty-free binary distribution minimizes overall product cost
- Rich variety of networking and security services for wired and wireless connectivity are integrated into NET+OS
- Extensive sample applications and documentation included to expedite application development and reduce time-to-market

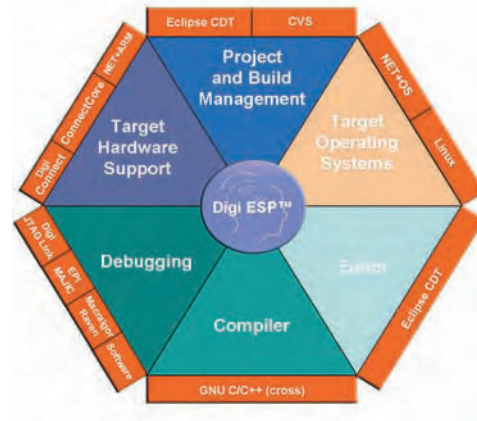
## + Ekahau Support ::

NET+OS 7 includes support for Ekahau client software, which provides integrated support for Ekahau's Wi-Fi device-location solution. Ekahau offers a complete access point vendor-independent real-time location system for wireless LAN devices. The solution provides floor-, room- and door-level accuracy of up to 3.5 ft (1 m). The patented Ekahau positioning technology is based on simple signal-strength calibration maps, and enables customers to fully leverage an existing wireless LAN infrastructure without any need for proprietary hardware components. For more information see [www.ekahau.com](http://www.ekahau.com).

## + What's New in NET+OS 7 ::

- Digi ESP™ is a full featured Interactive Development Environment (IDE) that facilitates the development of embedded NET+OS applications. Built on the popular and proven Eclipse platform, Digi ESP provides a complete and easy-to-use graphical user interface for embedded development.
- Support for new TCP/IP stack, with increased performance and support for IPv6, IPsec and a Zero-Copy sockets-like API.
- Updated 802.11 wireless driver support that includes a new API for scanning access points, and wireless security features, including support for WPA/WPA2 (802.11i)
- WPA2 Encryption includes AES-based CCMP, which provides confidentiality, integrity and origin authentication.
- NET+OS Command Line Interface (CLI) API provides functions for building and processing a user-defined CLI. NET+OS is equipped with a set of default CLI commands that the user can use in conjunction with custom commands or overwrite.
- With external hardware support, a deep sleep mode is now available. The deep sleep mode is a very low power mode, and requires an external trigger to provide a wake-up.





## + Specifications ::

- Microcross
  - Command line GDB debugger
  - Visual GDB source level debugger (Insight)
  - C run-time libraries
  - GCC compiler, assembler and linker
- Utilities
  - HTML compiler
  - MIB compiler
  - FTP client for PC-based download of Flash images
  - NET+OS programmer for device discovery
- Hardware debuggers
  - Support for Digi JTAG Link, Mentor Graphics MAJIC and Macraigor Raven
- NET+OS run-time software
  - BSP
    - Ethernet
    - I<sup>2</sup>C
    - Flash
    - Cache
    - LCD
    - RTC
    - USB host (keyboard, mouse, mass storage)
    - Serial
    - SPI
    - Parallel IEEE 1284
    - NVRAM
    - USB device
    - PCI/CardBus
    - PWM
  - ThreadX RTOS kernel

## + Specifications cont. ::

- Basic Internet protocols (TCP/IP stack)
  - TCP/IP (IPv4/IPv6), UDP/IP
  - ARP
  - IGMPv2 Multicasting
  - DHCP
  - ICMP
  - RARP
  - BOOTP
  - PPP
- Higher level protocols and services
  - FTP server and client
  - LDAP v3
  - TCP and UDP Sockets API
  - Advanced Web Server HTTP v1.1
  - Email (POP3, SMTP and ESMTP)
  - SNMPv3
  - MIBII for remote management
  - SNTp
  - DNS
  - Telnet
  - SLPv2
  - SSL
- Stack bypass filtering
- Integrated file system
- Address Configuration Executive (ACE)
  - WEP/WPA/WPA2/802.11i wireless security
  - Advanced Web Server
- Support available for Green Hills Software development tools

See Development Kit pages for part numbers.

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**Overview ::** Microsoft Windows Embedded CE 6.0 is a highly componentized operating system offering pre- tested technology components designed to create sophisticated embedded applications with minimized design effort and risk. It includes a wide range of ready-to-use components such as a graphical user interface, networking, web browser, and multimedia. Microsoft Visual Studio 2005 development tools are used to create applications with excellent user interface capabilities and real-time performance.

+

## + Features ::

- BSPs are custom-developed to support Digi microprocessor and module peripherals
- Ongoing development and support of Windows CE BSPs by Digi's engineering group that is certified as a Gold Level Member of the Microsoft Windows Embedded Partners Program (WEP)
- Sources are included with Digi BSPs in development kits, enabling embedded developers to debug code or execute the exact features needed
- BSPs are royalty-free, as long as they are used by hardware provided by Digi
- Support available from Digi for integrated hardware/software issues, eliminating any question among vendors of who "owns" the problem
- Hardware design review, TFT LCD device drivers, bootloader modification and board bring-up services available (see Digi Professional Services)
- Windows Embedded CE 6.0 support available for ConnectCore™ 9P, ConnectCore™ 9C/Wi-9C modules

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## + Specifications cont. ::

- Features for selective integration
  - .NET Compact Framework
  - Windows applications (Internet Explorer, etc.)
  - Core OS services (USB Host and display support)
  - Communication support and networking
    - Network Utilities: ipconfig, ping, etc.
  - Wired Local Area Network - 10/100 Ethernet networking
  - Servers: Telnet, FTP Server
  - FAT File system
  - Font support
  - Language support
  - Internet client services
  - Graphics and multimedia technology
  - Security
  - Shell/QVGA support
  - Error reporting
  - VoIP services
  - Local support defines default language, currency formats, date and time format specific to each country
  - Virtual keyboard
  - USB mouse or keyboard support

## + Specifications ::

- Complete support for module peripherals
- Drivers for LCD and touchscreen
- Exclusive Ethernet debugging channel
- BSP software catalog file contents
  - Ethernet NDIS driver
  - Serial ports (for internal and external UARTs and for external UARTs memory (mapped on))
  - PC card driver (ConnectCore 9P)
  - CPU type (NS9360/NS9750)
  - USB host
  - USB device
  - Flash file system for on-board Flash
  - Touch
  - Audio



See Development Kit pages for part numbers.

**Overview** :: Built around a standard Linux 2.6 kernel distribution, Digi's support is tailored to the specific needs of embedded Linux development and provides an easy-to-use, complete off-the-shelf development platform. It includes all components that are required to build secure network-enabled embedded products. This includes software components such as a customizable boot loader, a web server, file system support, SSL/TLS, WPA2/802.11i security, a fully Linux-hosted IDE, and others.



## + Features ::

- Integrated BSPs for Digi's embedded hardware platforms eliminates extensive adaptation and porting effort for low-level device drivers with the same software cross-development tools across the entire ARM-based product line
- Optimized support for Digi's processors and embedded modules
- Embedded operating system based on a recent version of the Linux 2.6 kernel with all the latest embedded Linux features, patches and bug fixes
- Single source for hardware and software support eliminates support delays and passing of problems between hardware and software vendors
- Complete development tool chain included
- Developers can leverage availability of additional software components or network services provided by the open source community, and adapt them for specific projects
- Distribution via live DVD (based on Ubuntu), can be executed via DVD or USB stick without installation for evaluation or transportability
- Secure wireless support with encryption (WPA/WPA2/WPA supplicant)

## + Specifications ::

- Linux kernel
  - Version 2.6.17
- **Digi ESP™ Integrated Development Environment**
- Based on Eclipse 3.1.2 and CDT 3.0.2
- C/C++ application and library wizards
  - Managed project builds w/automatic makefile generation and maintenance
- CVS source code management support
- Visual source code debugging via Ethernet
- Target monitor extensions
  - File system view, flash update, register inspection, target. reset, remote console
- Online help and cheat sheets
- **Network Services**
- TCP/UDP, ICMP, ARP, RARP, BOOTP, DNS, TFTP, Telnet
- DHCP Server/Client (BusyBox applet)
- PPP (pppd) and chat
  - Version 2.4.4
- Boa Web Server
  - Version 0.94

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## + Specifications cont. ::

### Secure Communication

- OpenSSL library
  - Version 0.9.7
- Very Secure FTP server (vsftpd)
  - Version 2.0.5
- Dropbear SSH Server/Client
  - Version 0.4.8

### Wireless LAN

- Wireless tools
  - Version 28
- WPA Supplicant
  - Version 0.5.7

### GUI

- Qtopia® Core, with touch screen support
  - Version 4.2.2

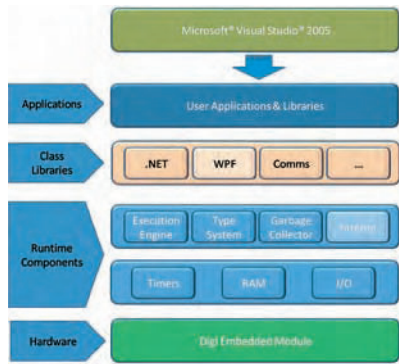
### USB

- Usbutils
  - Version 0.72

### Miscellaneous

- Flash partition update tool (update\_flash)
- Read/write NVRAM settings tool (ubootenv)
- Pciutils
  - Version 2.1.11
- mii-tool
  - Version 1.9.1
- mtd utils, tools for NAND/NOR memory
  - Version 1.0.0
- UART
- SPI (Master)
- I<sup>2</sup>C, including GPIO Expander and EEPROM
- GPIO (Processor)
- USB Host
- Watchdog
- RTC
- Ethernet
- WLAN (ConnectCore™ Wi-9C)
- Display (Framebuffer Driver)
  - CRT: ADI ADV7125 (VGA)
  - LCD: Sharp® LQ57Q3DC2 (QVGA), LQ64V3DG01 (VGA)
- Touch Screen
  - TI™ ADS7843 via SPI
- NAND
  - MTD Driver for Memory on Module

See Development Kit pages for part numbers.



**Overview ::** The Microsoft .NET Micro Framework greatly simplifies the complex task of embedded software development. Seamless integration with Visual Studio tools makes rapid embedded development accessible to software designers that are already familiar with server and desktop application development on existing Microsoft platforms. In addition, sharing existing .NET code across multiple product lines and platforms results in a even more shortened development cycle and significantly improved productivity.

## + Features ::

- Royalty-free and complete embedded development solution tailored for network-enabled devices
- Robust C# application platform based on .NET programming model and managed code environment
- State-of-the-art software development environment using Microsoft Visual Studio 2005 tools
- Immediate productivity improvements realized through existing software and tools know-how
- Digi-exclusive support for Ethernet networking with dual-mode IPv4/IPv6 TCP/IP stack integration
- Free 90-day Microsoft Visual Studio 2005 evaluation license included in every Digi JumpStart Kit
- Reliable and efficient C# managed code application environment
- Small memory footprint of about 300 KB
- Managed-code driver development
- Serial (UART) and GPIO interface support
- Optimized Garbage Collection
- Persistent storage (flash) support
- Time-sliced thread management
- Extended timer support
- Native code integration (mixed-mode/Interop)
- Application image deployment through serial port or network

## About Digi's .NET Micro

### + Framework Support ::

Digi support for Microsoft .NET Micro Framework 2.0 provides an easy-to-use and complete out-of-box solution for embedded development, including a fully functional 90-day trial of Microsoft Visual Studio 2005, plus sample code and user documentation.

With its small memory footprint, focused support for all critical features, and Digi's exclusive support for Ethernet network connectivity, .NET Micro Framework is the ideal choice for smaller network-connected devices utilizing Digi embedded modules in applications that do not require the capabilities of a Real-Time Operating System (RTOS) or more advanced operating system environments such as Microsoft Windows® Embedded CE or Linux.

## + Specifications ::

### Networking

- Digi IPv4/IPv6 dual-mode TCP/IP stack
  - DNS, DHCP, TCP, UDP, IGMP, ICMP, ARP
- Static, DHCP, or Auto-IP address assignment

### Security

- Data encryption and decryption services
  - Strong RSA-based asymmetric encryption
  - Symmetric XTEA encryption

### Class library namespaces

- .NET Base
  - System
  - System.Collections
  - System.Diagnostics
  - System.Globalizaton
  - System.IO
  - System.Net
  - System.Net.Sockets
  - System.Reflection
  - System.Resources
  - System.Runtime.CompilerServices
  - System.Runtime.InteropServices
  - System.Runtime.Remoting
  - System.Runtime.Text

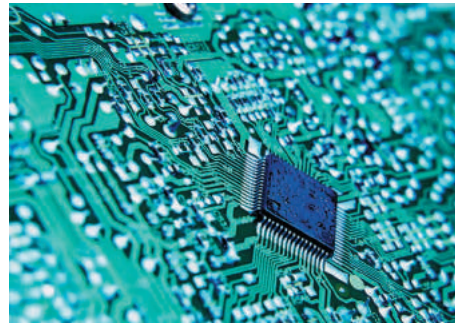
### .NET Micro Framework

- .NET Micro Framework
- Microsoft.SPOT
- Microsoft.SPOT.Cryptography
- Microsoft.SPOT.Hardware
- Microsoft.SPOT.Input
- Microsoft.SPOT.Net.NetworkInformation
- Microsoft.SPOT.Presentation
- Microsoft.SPOT.Presentation.Controls
- Microsoft.SPOT.Presentation.Media
- Microsoft.SPOT.Presentation.Shapes

### Supported Hardware Platforms

- Digi Connect ME®
- Additional platforms coming soon

**Overview ::** Digi Custom Design is intended to extend your internal development process, our services relieve you of low-level “infrastructure” development on your project. These are tasks that require a great deal of hardware and operating system-specific knowledge, but can be implemented in a short time frame. By leveraging our existing product expertise, we can offer services that will reduce your overall development time, bring your product to market faster, and enable your developers to concentrate on adding unique applications and features to your products.



## + Features ::

- Extensive development services in Linux and Microsoft Windows CE and modifications to NET+OS® operating environment
- Embedded infrastructure offerings include device drivers for LCDs and other peripherals, porting of security or networking services, and integration of middleware
- Hardware design reviews for Digi Connect® and ConnectCore™ module implementations
- More cost-effective than hiring outside consultants
- Custom design offered at a fixed price with a product part number that can be ordered easily, even through our distributors

## + Packaged Custom Design ::

We have defined some of the most common custom design requests and offer them for order by part number at a fixed price through our distribution channel. These designs are ready-made and can be delivered soon after the order is received to provide a “quick turn” for key deliverables in an embedded project, eliminating potential delays and disastrous bottlenecks.

### Hardware Design Review

Prior to manufacturing of first hardware, an experienced Digi engineer will review the schematics of a design based on Digi schematics provided in our development kits. This “peer review” provides an analysis of a baseboard for Digi module or microprocessor-based design, using Digi-supplied schematics. The Hardware Design Review will concentrate on the connections and power supplied to Digi devices, with an overview of the rest of the board. We will provide a detailed written report of findings, recommending changes and

## + Packaged Custom Design Cont. ::

suggestions for improvements. We guarantee that each design review will identify problems that would have required repairs or even a re-spin.

### Bootloader Modifications/Board Bring-up

For customers who have purchased a Hardware Design Review, we will make modifications to the bootloader so it will initialize the custom board correctly. In a board bring-up, we will make the necessary modifications to the bootloader and install the desired operating system on the custom board. Within a matter of days after production, the custom board will be ready for application development. We will provide the bootloader and operating system running on the custom board and the modified operating system files.

### LCD Device Driver

For embedded products requiring an LCD user interface, a device driver is required before data can be displayed by an application. We will provide a driver for the exact LCD chosen, providing support for the LCD’s specific features. This specialized task is needed only once. Because Digi engineers already possess the expertise required, the cost of outsourcing this to Digi is many times less than the time it will take to implement internally. Drivers for touchscreens are not included with this, but can also be provided.

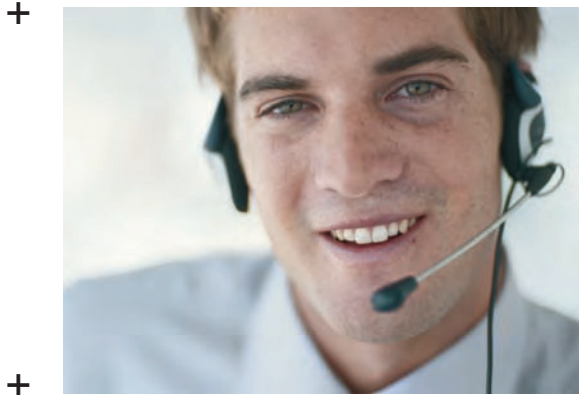
## Part Numbers ::

Worldwide

Model	
Hardware Design Review - Module-Based	FS-7700
Hardware Design Review - Microprocessor-Based	NSHWREVIEW
Bootloader Modifications - Linux	FS-7705
Bootloader Modifications - Windows CE	FS-7706
Board Bring-up - Linux	FS-7707
Board Bring-up - Windows CE	FS-7708
LCD Device Driver - Microsoft Windows CE	FS-7701
LCD Device Driver - Digi Embedded Linux	FS-7702

Note: Bootloader Modifications/Board Bring-up require a Hardware Design Review.

# Embedded Technical Support :: Software and Support



**Overview ::** Our technical support professionals provide expert assistance to resolve all technical problems you might encounter while using Digi's embedded development kits for our embedded modules or NET+ARM processors. Critical issues are escalated as necessary to properly address situations in the shortest time possible. All Digi development kits include basic installation and initial setup support without extra charge. In addition, Digi delivers two levels of technical support plans covering customers beyond installation and setup – Essential Support and Premium Support.

## + Features ::

- Free Support for Installation and startup of all Digi embedded products
- Quick escalation path for resolution of critical issues
- Free access to online web forum support services
- Complete support plan offering
  - Cost-effective Essential Support plan (modules only)
  - Comprehensive Premium Support
  - Pay-Per-Incident option
- Focused on embedded product solutions
  - Digi Connect® and ConnectCore™ embedded modules
  - NET+ARM processors
- Support options independent of software platform
  - NET+OS®
  - Microsoft Windows CE
  - Linux

## + Types of Plans ::

### Essential Support Plan

- Up to ten (10) incidents of unrestricted technical support
- Phone or email access for up to two (2) named contacts
- Web access to incident status through eservice account
- Covering all Digi provided development platforms
  - NET+OS
  - Microsoft Windows CE
  - Microsoft .NET Micro Framework
  - Linux
- Available to embedded module customers only
- Additional technical support available through Pay-Per-Incident or plan renewal/purchase

## + Types of Plans cont. ::

### Premium Support Plan

- Annual support plan with unrestricted technical support
- Unlimited number of incidents
- Phone or email access for up to two (2) named contacts
- Web access to incident status through e-service account
- Covering all Digi provided development platforms
  - NET+OS
  - Microsoft Windows CE
  - Microsoft .NET Micro Framework
  - Linux
- Development platform software maintenance
  - Major and minor releases, including development tools
  - Electronic or media distribution
- Available to embedded module and NET+ARM processor customers

### Pay-Per-Incident

- Single incident without restrictions
- Phone or email access for one (1) named contact
- Web access to incident status through e-service account
- Covering all Digi provided development platforms
  - NET+OS
  - Microsoft Windows CE
  - Microsoft .NET Micro Framework
  - Linux
- Available to embedded module customers only
- Purchase through initial call to Digi technical support

## Part Numbers ::

Worldwide

### Models

Essential Support Plan (embedded modules only)  
Premium Support Plan

DG-ESUP-ESS  
DG-ESUP-PRM

Pay-Per-Incident support is available by calling Digi technical support.

An incident is defined as a single support issue and the time and effort needed to resolve the issue. A single support issue is defined as a specific issue that cannot be separated into subordinate issues. Subordinate issues are considered separate incidents.

**NS9215/NS9210** :: The NS9215 and NS9210 are the ideal choice for applications requiring a cost-efficient 32-bit processor solution, high performance and secure network connectivity — combined with power management options and an additional level of truly unique I/O flexibility. The NS9210 is a pin-compatible upgrade for existing NS7520 designs.

- High-performance, low cost and small footprint combined with Ethernet and on-chip peripherals
- 75-150 MHz ARM926EJ-S CPU with MMU, 4 KB I-Cache and 4 KB D-Cache
- Strong off-the-shelf operating software platform support (NET+OS®, based on ThreadX, Linux, and Microsoft .NET Micro Framework)
- 256-bit AES high-performance on-chip accelerator supports state-of-the-art security
- Sleep modes and on-the-fly clock scaling for power-efficient product designs
- Unique flexible interface modules offer software configurable I/O flexibility

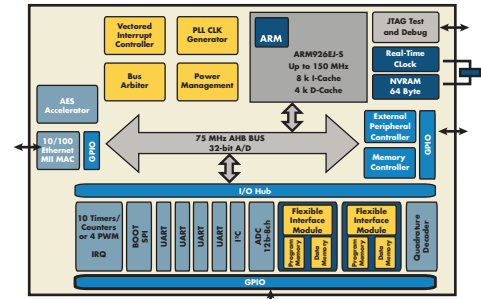
**NS9360** :: The NS9360 is a highly integrated 32-bit network-attached processor specifically designed for use where price, performance and a rich set of peripherals are important.

- High performance ARM9-based processor provides compute bandwidth for demanding embedded device networking applications
- 103-177 MHz ARM926EJ-S CPU with MMU and 8 kB/4 kB instruction/data cache
- High level of peripheral integration provides glueless interfaces to a rich set of industry standard devices: 10/100Base-T Ethernet, USBd, USBh, LCD, 4xUART/SPI, I<sup>2</sup>C, IEEE 1284, serial ports and GPIO.
- Supported by the comprehensive, integrated and royalty-free NET+OS development suite

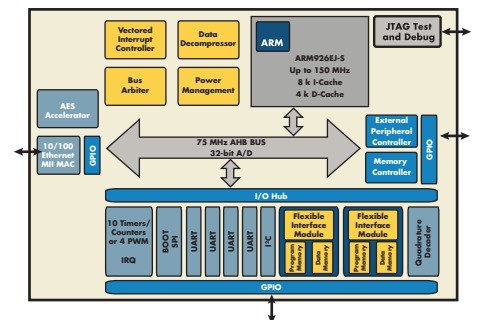
**NS9750** :: The NS9750 is a highly integrated 32-bit network-attached processor specifically designed for use in intelligent networked devices and Internet appliances where performance, price and a rich set of peripherals including CardBus and PCI are needed.

- High performance ARM9 32-bit processor provides compute bandwidth for the most demanding embedded device networking applications
- 125-200 MHz ARM926EJ-S processor with 8 kB/4 kB instruction/data cache and MMU
- High level of peripheral integration provides glueless interfaces to a rich set of industry standard devices: USB, PCI or CardBus, I<sup>2</sup>C, IEEE 1284, serial ports, a high performance LCD controller and GPIO
- Supported by the comprehensive, integrated and royalty-free NET+OS development suite

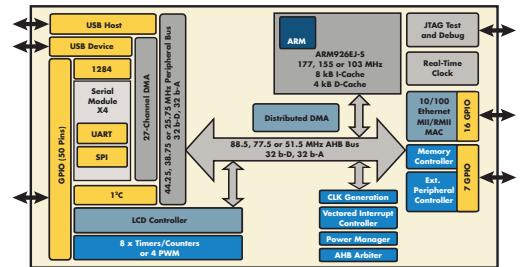
**NS9215**  
177-pin BGA package, 13 x 13 mm, 0.18 process



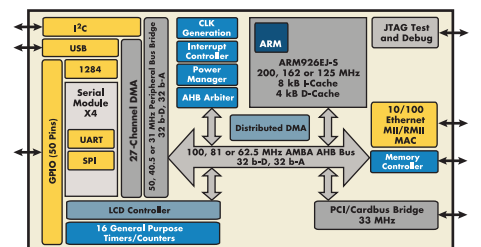
**NS9210**  
177-pin BGA package, 13 x 13 mm, 0.18 process



**NS9360**  
272-pin BGA, lead-free, RoHS compliant



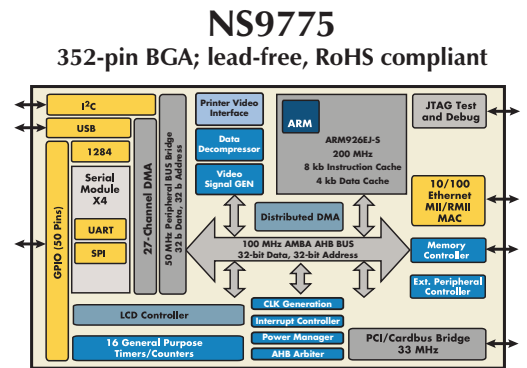
**NS9750**  
388-pin BGA; lead-free, RoHS compliant



# NET+ARM Microprocessors :: System-on-Chip Solutions

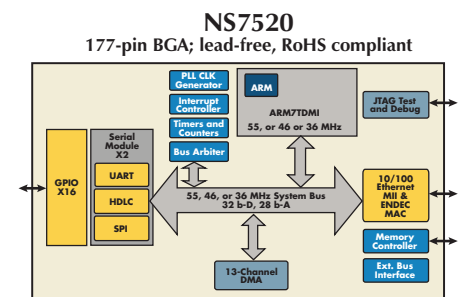
**NS9775** :: The NS9775 is a highly integrated processor specially designed for color laser printers.

- High performance 32-bit processor provides networking and decompression bandwidth for raster printer applications
- ARM926EJ processor with 8 kB/4 kB instruction/data cache and MMU
- High level of peripheral integration provides glueless interfaces to a rich set of industry standard devices: USB, PCI or CardBus, I<sup>2</sup>C, IEEE 1284, serial ports, a high performance LCD controller and GPIO
- Supported by the comprehensive, integrated and royalty-free NET+OS<sup>®</sup> development suite



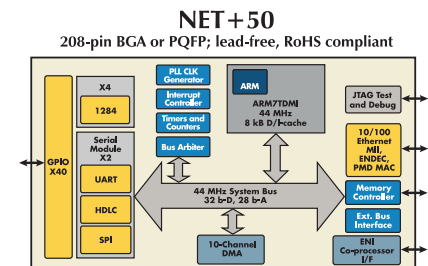
**NS7520** :: The NS7520 is a low-cost, easy to integrate, 32-bit network-attached processor specifically designed for connecting serial devices to IP networks.

- Low-cost 32-bit ARM7-based processor provides all interfaces necessary to easily connect serial devices to a network
- 33-55 MHz ARM7 TDMI CPU
- Offers glueless interfaces to 10/100Base-T Ethernet, UART, SPI serial ports and GPIO
- Supported by the comprehensive, integrated and royalty-free NET+OS development suite



**NET+50** :: The NET+50 is a processor developed especially for print servers.

- Specialized ARM7-based processor for use in developing networked print servers
- 44 MHz ARM7 TDMI CPU with 8 kB cache
- Provides glueless interfaces to UART, SPI serial ports and GPIO combined with four IEEE 1284 host ports and a co-processor interface
- Supported by the comprehensive, integrated and royalty-free NET+OS development suite



**Microprocessor Development Tools** :: Digi's NET+ARM processors are fully supported by the royalty-free NET+OS suite of advanced networking development tools and software. Support for Linux and Windows CE is also available. Please contact your Digi sales representative for details.



## Part Numbers ::

Worldwide 

### Model

#### NS9210

75 MHz, -40° C to 85° C

NS9210B-0-I75

150 MHz, -40° C to 85° C

NS9210B-0-I150

#### NS9215

75 MHz, -40° C to 85° C

NS9215B-0-I75

150 MHz, -40° C to 85° C

NS9215B-0-I150

#### NS9360

103 MHz, 0° C to 70° C

NS9360B-0-C103

155 MHz, -40° C to 85° C

NS9360B-0-I155

177 MHz, 0° C to 70° C

NS9360B-0-C177

#### NS9750

125 MHz, 0° C to 70° C

NS9750B-A1-C125

162 MHz, -40° C to 85° C

NS9750B-A1-I162

200 MHz, 0° C to 70° C

NS9750B-A1-C200

#### NS9775

125 MHz, 0° C to 70° C

NS9750B-0-C125

162 MHz, -40° C to 85° C

NS9750B-0-I162

200 MHz, 0° C to 70° C

NS9750B-0-C200

#### NS7520

36 MHz, 0° C to 70° C

NS7520B-1-C36

46 MHz, -40° C to 85° C

NS7520B-1-I46

55 MHz, 0° C to 70° C

NS7520B-1-C55

55 MHz, -40° C to 85° C

NS7520B-1-I55

#### NET+50

For NET+OS Operating System (BGA)

NET+50-BIT

For NET+OS Operating System (PQFP)

NET+50-QIT-3

With pSOS License (BGA)

NET+50-BINP

With pSOS License (PQFP)

NET+50-QINP-3

For No Operating System (BGA)

NET+50-BIN

For No Operating System (PQFP)

NET+50-QIN-3

Note: OS versions contain paid fees for the run-time license.

All at 44 MHz and -40° C to 85° C operation.

# Console Management

## Intelligent Console Servers and Power Management

Managing all of the servers and network equipment in a modern data center is a demanding task. Maintaining reliability, connectivity and security across multiple platforms and multiple networks requires an integrated and flexible approach that provides reliable access to all of your equipment regardless of whether it is local or remote.

Console management provides immediate access in critical situations, removing unnecessary travel cost and delay to reach equipment at remote locations, allowing administrators to quickly restore functionality and resume normal operations.

Expanding infrastructure requires a mechanism that can be quickly and easily scaled to meet increased requirements. Automatic alert and alarm capabilities, coupled with flexible logging and collaboration tools provide the basis for a comprehensive, secure and accountable method to monitor, manage and maintain corporate IT assets via LAN, WAN or dial-up connections.

Digi's secure, intelligent and versatile console management products provide the capabilities to meet demanding local and remote data center requirements. The Digi Passport™ and Digi CM™ console servers, and Digi RPM (Remote Power Manager), along with Digi's strong technical support, five-year warranty and available 24/7 service agreements, make console management a cost-effective and reliable solution to maximize enterprise reliability.

**Digi Passport: Secure, Comprehensive and Reliable Access**

### What do you need to do?

- + Ensure redundant network connectivity and automatic failover..... **Digi Passport**
- + Access and manage IPMI-enabled servers on your network ..... **Digi Passport**
- + Access the graphical desktop of managed systems via *freeKVM*™ ..... **Digi Passport, Digi CM**
- + Monitor and control IT equipment such as Sun servers, Cisco routers, network switches, intelligent power supplies and telephone switches through industry standard serial console ports..... **Digi Passport, Digi CM**
- + Maintain logs of all activity on servers and network equipment to comply with current and future regulations and policies, such as Sarbanes-Oxley ..... **Digi Passport, Digi CM**
- + Maximize server uptime, increase IT efficiency and improve your bottom line..... **Digi Passport, Digi CM**
- + Remotely power on/off devices and configure alarms for notification of out-of-spec conditions..... **Digi RPM**

## + Console Management – Intelligent Console Servers and Power Management

### Console Servers

- Digi Passport™ ..... pg. 86-87
- Digi CM™ ..... pg. 88-89

### Power Control and Monitoring

- Digi RPM (Remote Power Manager)..... pg. 90

### Management Tools/Special Features

- Monitoring Capabilities ..... pg. 91
- **freeKVM™** ..... pg. 92
- Automatic Device Recognition ..... pg. 93
- RemotePorts ..... pg. 93

\* For simple, secure console access to servers and routers, please see PortServer TS serial servers on page 12.

Test drive a real Digi Passport using our online demo.  
[www.digi.com/passportdemo](http://www.digi.com/passportdemo)



Visit our website to download our Solution Guide  
[www.digi.com/literature](http://www.digi.com/literature)

	Hardware Features	Digi Passport	Digi CM
Hardware Features	Serial Console Ports	4, 8, 16, 32 or 48	8, 16, 32 or 48
	Serial Type	RS-232	RS-232
	Serial Connector	RJ-45	RJ-45
	Ethernet Ports	2	1
	10/100 Mbps	•	•
	USB Ports	1	
	PC Card Slot	0	•
	100/240VAC	•	•
	48VDC Option	•	•
	Dual AC Version	°	†
	Internal Modem Option	•	
	1U Rack-Mountable	°	•
	Firmware Features	freeKVM	•
PPP		•	
IPv6		•	
IPMI		•	
Perl Language		•	
SSHv2		•	•
Radius		•	•
SSL		•	•
Sun Break Safe		•	•
IP Filtering		•	•
Secure Clustering		•	•
HTTPS		•	•
Port Alert Email		•	•
SNMP		•	
Access Per Port		•	•

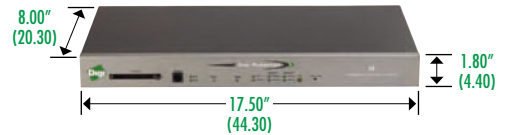
° Available on all models except 4-port

† 48-port only

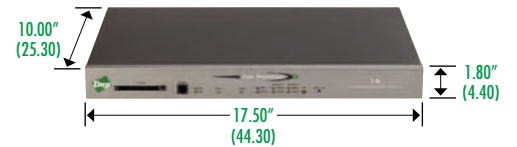
### Digi Passport 4



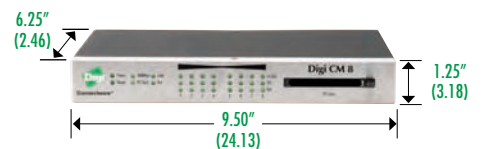
### Digi Passport 8



### Digi Passport 16/32/48



### Digi CM 8



1U - rack mountable

Measurements: inch  
(cm)

Digi RPM

<b>Hardware Features</b>	Power Outlets	8/10
	120VAC Models	•
	240VAC Models	•
	Serial Ports	2
	Serial Type	RS-232
	Serial Connector	RJ-45
	Rack Mount	0U and 1U
	Amps	16
	Terminal Server Integration	•
	Integrated Web UI	•
	Daisy Chaining	Up to 10 units
	Port Name Assignment	•
	Integrated Temperature Sensor	•
	Temperature/ Load Email and SNMP Alerts	•
	Power Sensor	•
Adjustable Alarm LED for High Current Alert	•	
Front Panel LCD (Voltage, Current, Power)	•	

**Digi CM 16**

1U - rack mountable

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**Digi CM 32**

1U - rack mountable

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**Digi CM 48**

1U - rack mountable

---

**Digi RPM 8**

1U - rack mountable

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**Digi RPM 10**

0U - rack mountable

Measurements: inch (cm)

# Digi Passport™ :: Integrated Console Server

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**Overview** :: The Digi Passport provides reliable and secure remote access to the console ports of computer systems and network equipment over network or dial-up connections. Offering native support for direct serial connections as well as remote serial over network connections such as ALOM, ILOM, iLO, and IPMI, the Digi Passport can communicate with virtually any server or device. With *freeKVM*™, the Digi Passport also enables network-based graphical access to servers, without the cost and complexity of traditional KVM over IP solutions.

+

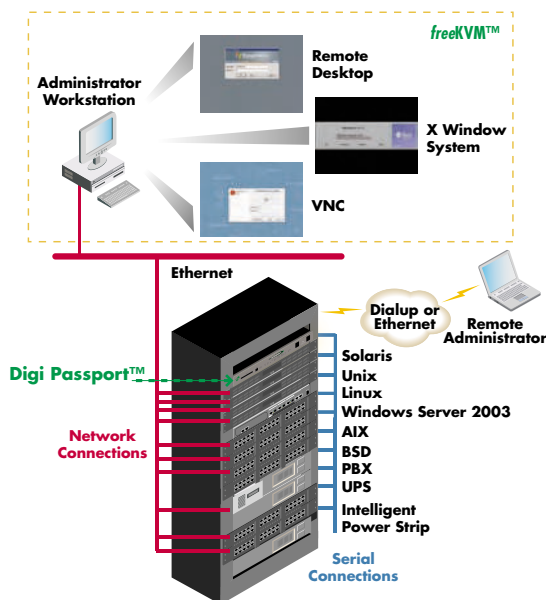
+

## + Features ::

- Cisco, HP, IBM, Linux, Solaris, UNIX and Windows Server 2003 compatible
- *freeKVM* for remote access to the graphical desktop of managed systems
- Automatic Device Recognition for simple setup and alert notification
- SSHv2 for secure access
- Native IPMI support
- IPv6 ready
- Port buffering/logging for detailed troubleshooting and regulatory audits
- Configurable email/pager alerts and SNMP traps
- Advanced customizable scripting
- Secure clustering for multi-server access via one IP address
- PC Card slot for Wi-Fi, memory or modem cards
- USB port provides expanded logging storage, automatic configuration and additional functionality
- Dual Ethernet, optional dual power and optional 48VDC power provide redundant connectivity and power
- Optional internal V.92 modem available
- 1U 19" rack-mountable for better co-location with network hardware
- Straight-through CAT5 cabling for easy server connection
- 5-year warranty; 24/7 service agreements available

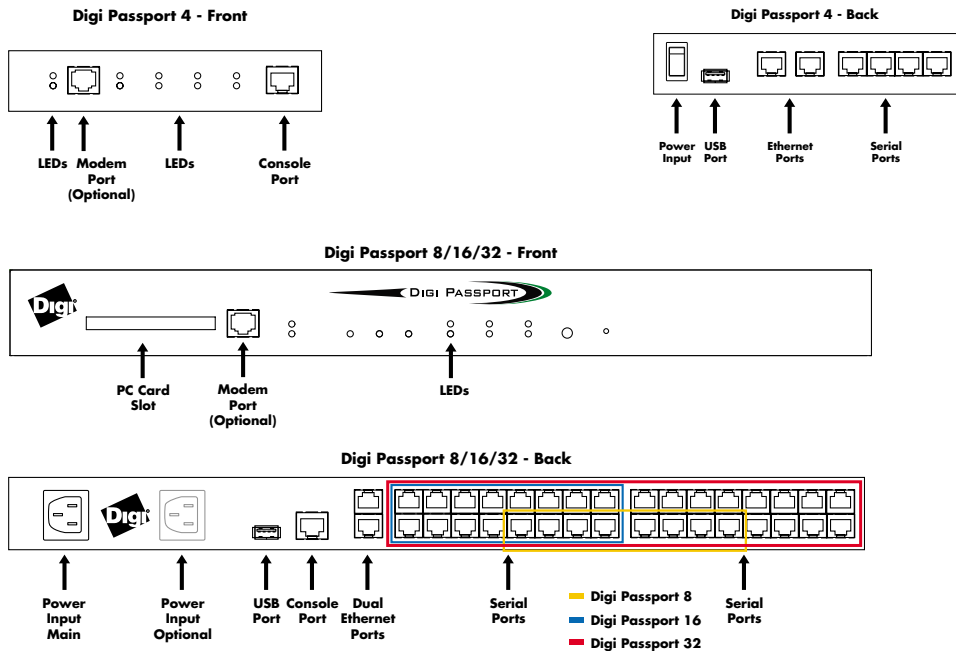
## + Specifications ::

- 4, 8, 16, 32 or 48 RJ-45 RS-232 serial ports
- 1 RJ-45 RS-232 console port
- 2 RJ-45 10/100Base-T Ethernet ports
- 1 USB v2.0 port
- 1 PC Card slot available on 8/16/32/48-port units (16-bit PCMCIA)
- Management
  - Command line
  - Web (HTTP/HTTPS)
  - SNMPv3
  - Service Processor Manager support: IPMIv2.0, ALOM, DRAC, iLO, ILOM, SMASH
  - Port triggers, alerts and SNMP traps
  - Multi-level menuing
- Security
  - SSH server/client, SSL/TLS, IP filtering
  - Data capture via port buffering and logging (syslog-ng and NFSv3)
- Authentication
  - TACACS+, RADIUS, Secure LDAP, Kerberos, local user list
- Port access
  - HTTPS/HTTP, SSH/Telnet to a customizable menu, SSH/Telnet directly to the port by name, port specific socket or specified IP number per port
  - Multiple users per port
  - Simultaneous SSH sessions on all ports
  - RemotePorts extends console management features to remote devices
  - PPP for remote dial-in access to the network
- *freeKVM* for remote desktop access
- IPv4/IPv6 dual stack
- Secure clustering - establish a single IP address for multiple Digi Passport units
- Perl scripting for advanced log searching and alerting
- RoHS compliant
- Use straight-through CAT5 cables for all serial and Ethernet connections
- 19" rack mount kit included (8/16/32/48 only)
- Remote power management controller support
  - Digi Remote Power Manager (RPM)
  - BayTech
  - Server Technology



[www.digi.com/passportdemo](http://www.digi.com/passportdemo)

# Digi Passport™ :: Integrated Console Server



## Part Numbers ::

North America International

Model	North America	International
Digi Passport 4	70002256	70002257
Digi Passport 4 w/Modem	70002266	70002267
Digi Passport 8	70002258	70002259
Digi Passport 8 w/Modem	70002268	70002269
Digi Passport 16	70002260	70002261
Digi Passport 16 w/Modem	70002270	70002271
Digi Passport 16 Dual AC Power	70002276	70002277
Digi Passport 32	70002262	70002263
Digi Passport 32 w/Modem	70002272	70002273
Digi Passport 32 Dual AC Power	70002278	70002279
Digi Passport 32 DC Power	70002288	70002288
Digi Passport 48	70002264	70002265
Digi Passport w/Modem	70002274	70002275
Digi Passport 48 Dual AC Power	70002280	70002281

All cables and accessories: pg. 159.

Please see website for service agreement options.

# Digi CM™ :: Integrated Console Server

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**Overview ::** The Digi CM provides intelligent, secure and easy access to servers and network equipment through a serial port. With Digi CM, administrators can securely monitor and control servers, routers, switches, PBX, firewalls and other network devices from anywhere on the corporate network, over the Internet, or through dial-up modem connections – even when the server is unavailable through the network.

+

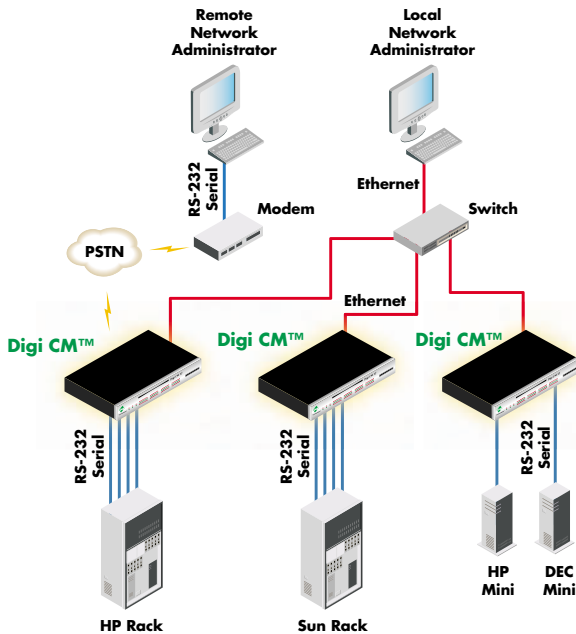
## + Features ::

- Sun, Cisco, IBM, HP, UNIX, Linux and Microsoft Windows Server 2003 compatible
- SSHv2 for secure access
- 1U 19" rack-mountable for better co-location with network hardware
- Automatic Device Recognition for simple setup and alert notification
- Secure clustering (up to 544 devices) allows multi-server access via one IP address
- Port buffering/logging for troubleshooting and regulatory audits
- Email/pager alerts and SNMP traps
- RADIUS, TACACS+, Kerberos and LDAP for a variety of authentication options
- Straight-through CAT5 cabling for easy server connection
- PC Card slot for Wi-Fi, memory or modem cards
- 24/7 service agreements available
- 5-year warranty

+

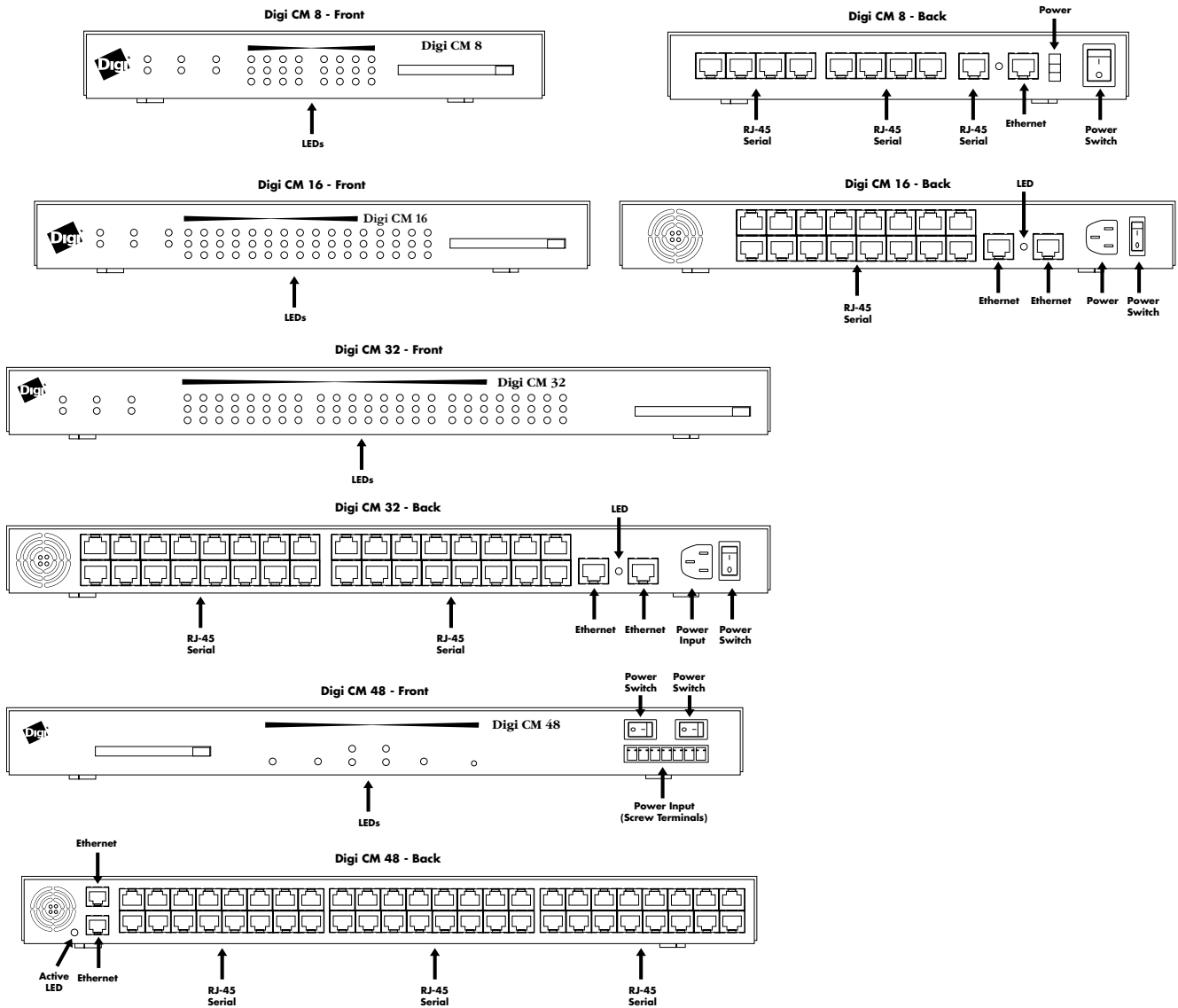
## + Specifications ::

- 8, 16, 32 or 48 ports
- Security
  - SSHv2 server and client
  - SSL
  - IP filtering
- Authentication via TACACS+, RADIUS, LDAP, Kerberos, local user database
- Management
  - Command line
  - Web – HTTP/HTTPS
  - SNMP
  - Port triggers and alerts
  - Multi-level menuing
  - Auto-discovery
  - Automatic Device Recognition
- Data capture via port buffering and logging (syslog, NFS, PC Card)
- Port access via Telnet/SSH with menuing, Reverse Telnet/SSH, HTTP/HTTPS
- Multiple users per port (up to 15)
- Flash upgradeable
- SSH sessions simultaneously on all ports
- Secure clustering - single IP for multiple Digi CM devices
- Separate IP address per port





# Digi CM™ :: Integrated Console Server



## Part Numbers ::

North America International

Model	North America	International
Digi CM 8	70001931	70001932
Digi CM 8 - 48VDC	70002034	70002034
Digi CM 16	70001910	70001911
Digi CM 16 - 48VDC	70001938	70001938
Digi CM 32	70001908	70001909
Digi CM 32 - 48VDC	70001937	70001937
Digi CM 48	70001949	70001950
Digi CM 48 - Dual AC	70001951	70001952
Digi CM 48 - 48VDC	70001953	70001953

All cables and accessories: pg. 159.

# Digi RPM :: Power Control and Monitoring Device

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**Overview ::** Digi RPM (Remote Power Manager) provides an easy solution for the supervisory control and management of power for attached electrical devices. When integrated with the Digi Passport™, Digi CM™ and PortServer® TS families, Digi RPM provides an interface for users to configure alarms for 24/7 “real-time” notification of out-of-spec conditions such as power usage and temperature. Administrators can remotely reboot unresponsive servers or shut down unused devices, while also performing console management from a common interface.

+

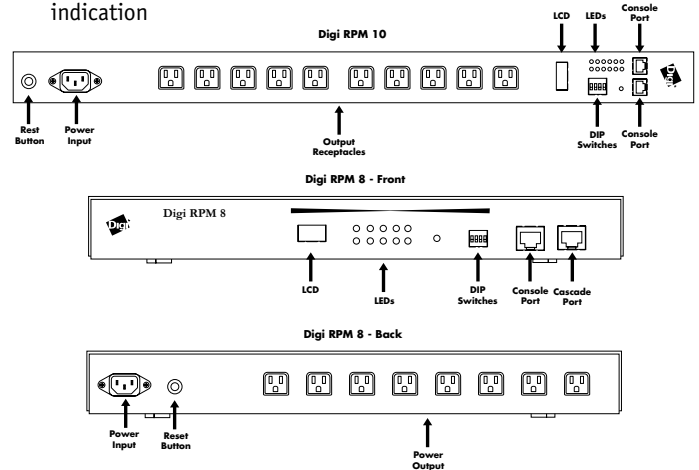
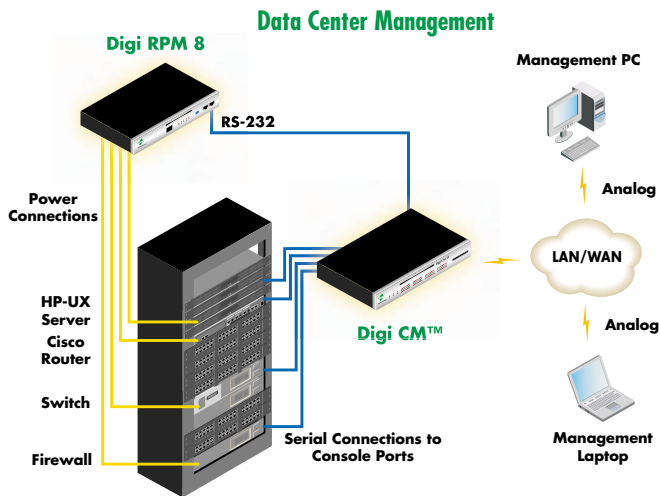
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## + Features ::

- Remotely power devices on and off without sending a technician on site
- Front panel displays total current and power load
- Monitor ambient temperature to prevent loss of critical equipment due to overheating
- Configurable alarms provide 24/7 “real-time” monitoring
- Integration with Digi Passport or Digi CM provides common interface for console and power management over Ethernet or dial-up
- Cascading allows up to 15 Digi RPMs to be daisy-chained to a single Digi Passport or Digi CM serial port
- Also works with PortServer TS (in non-cascading mode)
- 5-year warranty

## + Specifications ::

- 8-port 1U rack-mountable and 10-port 0U rack mountable models
- 120VAC, 20A and 240VAC, 16A models (up to 10A per port)
- Front panel LCD for direct viewing of total current load and power consumption
- 2 RJ-45 serial ports (1 for communications, 1 for daisy-chaining)
- Power sensor (watts)
  - Average/apparent power
  - RMS voltage/current
  - Circuit breaker status
  - Max current
- Integrated temperature sensor
- Integrated with user interface of Digi Passport, Digi CM and PortServer TS 8/16 products
- Alarm LED for high current alert (software adjustable)
- Command line interface works with any serial connection
- Ships with cables required to connect to Digi CM, PortServer TS 8/16 or PC serial port
- 1 status indicator LED per port for outlet status/alarm indication



## Part Numbers ::

North America International

### Model

Digi RPM 8 - 1U, 8 outlets, 120VAC, 16A

70002004

Not available

Digi RPM 8 - 1U, 8 outlets, 240VAC, 16A

Not available

70002005

Digi RPM 10 - 0U, 10 outlets, 120VAC, 20A

70002006

Not available

Digi RPM 10 - 0U, 10 outlets, 240VAC, 20A

Not available

70002007

All cables and accessories: pg. 165.

**Overview** :: Documenting regulatory compliance is a constant drain on financial and staffing resources. With the advanced auditing, logging and monitoring functions of Digi's console management solutions, it is possible to implement effective security and change-control policies that allow real-time, continual compliance monitoring, while increasing productivity and system uptime.

## Auditing

Digi's console servers provide a physical choke-point gateway to all the systems to which they provide access. Whether this is network equipment such as routers and switches, or UNIX or Linux systems, if security policies require privileged system access to occur through the Digi Passport or Digi CM, then all changes are logged and documented.

- User management via centralized server (RADIUS, LDAP, TACACS+) or independent user list
- Separated admin and user responsibilities; most users do not need privileged access to the Digi Passport and Digi CM
- Customizable user access controls
- RemotePorts capability provides auditable access to systems without requiring a physical serial console connection to them

## Logging

Dual logging capabilities enable the Digi Passport and Digi CM to log all activity simultaneously to two independent systems. Automatic real-time testing of the logs will uncover any discrepancies without requiring the production system to be offline.

- NFS
- Syslog
- Logging to optional Flash card
- Secure simultaneous multiple read access – allows third party applications to log data on a port
- Log playback option

## Notification

In addition to monitoring access to systems, the Digi Passport and Digi CM can monitor the state of the systems themselves, sending alerts whenever a cable is unplugged, a system is rebooted, the system is accessed by any user over the network, the port a system is connected to changes, or a system fault occurs. The Digi Passport and Digi CM will send immediate notification, allowing rapid response to any event causing a system to be in a non-compliant state.

- Syslog and SNMP for easy integration into existing NMS
- SMTP for email or SMS notification
- Custom notification allows specification of port, keyword, method, recipient and destination system for each entry

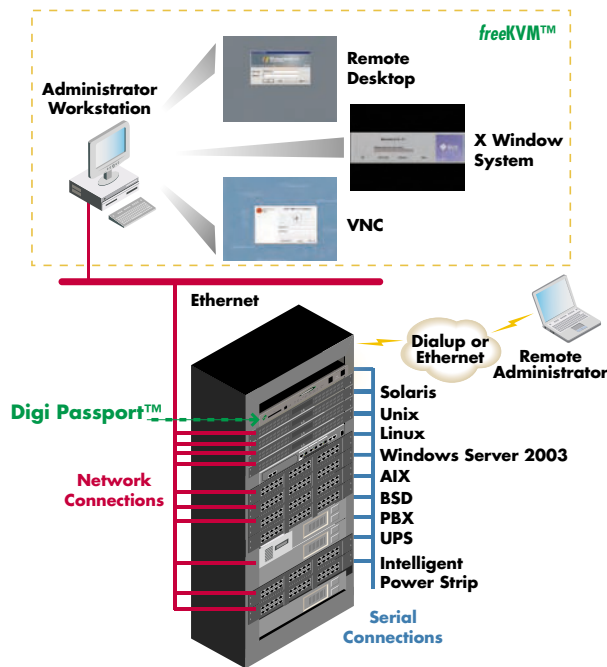
In addition to serial console access to network equipment and computer systems, Digi console servers provide a method for gaining access to the graphical interface of computer systems on the network. This method, called *freeKVM*, allows users to specify a connection protocol and IP address to reach each targeted system. With the addition of *freeKVM*, Digi console servers provide complete system access from one easy-to-use interface – remote desktop access for administrators accustomed to working in a graphical environment, and serial console access for low level system management.

The addition of *freeKVM* allows users to concurrently manage multiple servers via a single interface without the cost and synchronization penalties associated with KVM over IP solutions. Since *freeKVM* requires no extra cabling, it results in a less complicated set-up with better air flow around data center equipment.

By combining the ability to perform operating level tasks through the serial or network console with the ability to concurrently perform application level tasks across multiple systems using *freeKVM*, Digi offers data center managers versatile, secure and reliable access to servers.

## *freeKVM* at a Glance

- Gives administrators a graphical interface for system access
- Integrates with SAC (Special Administration Console) capability to utilize the serial or network console of Windows Server 2003 for fast system recovery
- Consumes less network bandwidth than KVM over IP solutions
- Easy to use over low bandwidth network connections; no mouse synchronization issues
- Less physical infrastructure in the rack to restrict airflow around data center equipment
- Can eliminate the need for hardware-based KVM over IP if used with serial or network console capable hardware
- Supported connection protocols include Remote Desktop Protocol, VNC, XManager for UNIX (using the X Window System) as well as the ability to define other methods

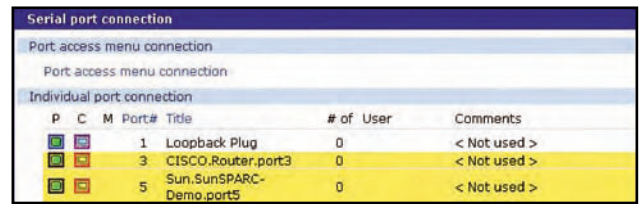


# Automatic Device Recognition :: Management Tools/Special Features

**Overview** :: Digi's Automatic Device Recognition feature is included with all Digi console server solutions. It makes configuration and management of console servers easier by detecting which type of server, router or switch is connected to the unit. By automatically recognizing the device, administrators will reduce errors caused by incorrect cabling and can also reduce network equipment downtime by receiving alerts when devices go offline.

When a user accidentally unplugs a device, then plugs it back into a different port, it can be very difficult for a remote administrator to determine what happened or to access the equipment. There are also regulatory compliance implications if the situation is not detected. Automatic Device Recognition can detect this type of cable change and the "Port #" and "Title" portions of the web browser interface will be updated to reflect the new location of the device.

Automatic Device Recognition is also a time saver at the point of initial configuration and installation, as the installer does not have to remember which server is plugged into which port, allowing verification and



P	C	M	Port#	Title	# of User	Comments
			1	Loopback Plug	0	< Not used >
			3	CISCO.Router.port3	0	< Not used >
			5	Sun.SunSPARC-Demo.port5	0	< Not used >

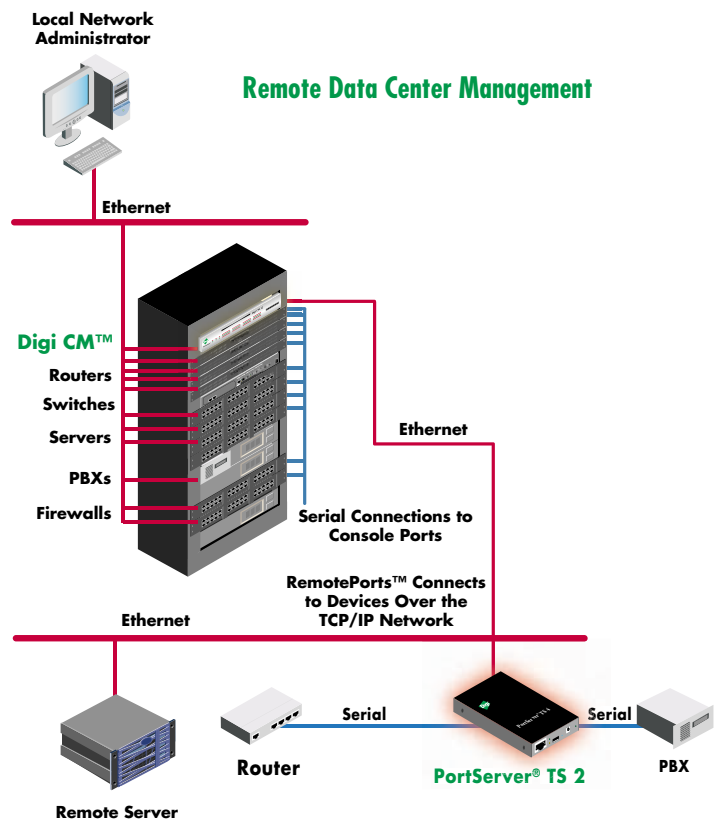
Ports 3 and 5 were automatically detected using Automatic Device Recognition.

validation that all connections were made correctly. This reduces confusion and risk, thus maximizing uptime of console server systems, and accelerates the process of turning on new equipment or completing maintenance of existing equipment.

With Automatic Device Recognition, users can also monitor each of the serial ports, ensuring that the attached device does not go offline. For example, if a server attached to a Digi Passport via the serial console port went down, Automatic Device Recognition could detect this condition and send out an SNMP trap or email message to notify the administrator for immediate action.

# RemotePorts :: Management Tools/Special Features

**Overview** :: RemotePorts extends the console management features of the Digi Passport and Digi CM to remote servers and devices. By configuring a Digi console server to manage a RemotePorts connection to a Digi serial server deployed near a remote server or network, RemotePorts allows these remote devices to be centrally managed as though they were directly connected to the Digi console server. RemotePorts provides cost-effective scalability by extending high-end console management features to additional ports beyond the native serial ports on the Digi console server, thereby eliminating the need for a dedicated console server at each location.



# Remote Display Connectivity

## PC Alternative for Remote Clients

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

ConnectPort Display is ideal for mission-critical enterprise applications. Zero-clients can eliminate PCs from restaurant kitchens, checkout stations, retail kiosks, digital advertising signs, medical facilities and manufacturing floors. They instantly reduce costly equipment maintenance and increase reliability, functionality and security.

Standard terminal emulation support provides a 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.

### What do you need to do?

- + Connect, access and monitor video displays plus serial and USB devices over TCP/IP, without changing application software..... **ConnectPort Display**
- + Eliminate dedicated PCs or thin clients from the point of service in retail/POS, medical, banking and other mission-critical applications..... **ConnectPort Display**
- + Gain the flexibility to run a terminal oriented configuration today and migrate to newer graphic displays whenever desired..... **ConnectPort Display**
- + Display high resolution video images at remote sites..... **ConnectPort Display**
- + Provide remote audio content in conjunction with the remote display ..... **ConnectPort Display**

### + Remote Display Connectivity – Remote Networking Hubs

#### Zero-Clients

- ConnectPort Display.....pg. 95

#### Management Tools/Special Features

- Server Virtualization .....pg. 97
- RealPort®.....pg. 39
- RealPort® USB.....pg. 115

# ConnectPort™ Display :: Zero-Clients

**Overview** :: The ConnectPort Display zero-client makes it possible to connect, monitor and interact with remote display, USB and serial devices over IP – without a locally attached host PC or thin client. This translates to smaller deployment stations, centralized management and reduced IT support for mission-critical applications such as retail/POS, restaurants, banking, manufacturing, digital advertising, medical and many others.

+

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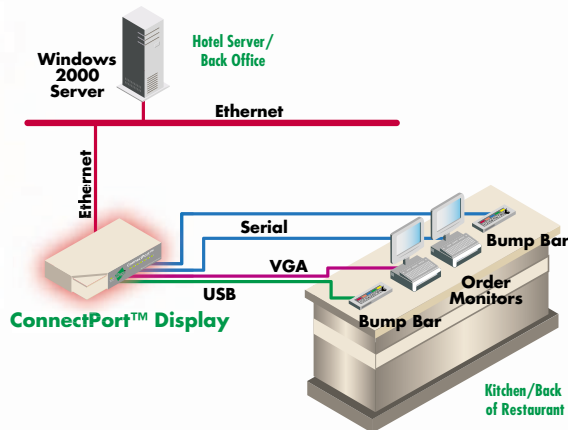
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## + Features ::



- Interact with serial, USB and display devices over TCP/IP connection, without a dedicated PC or thin client
- Save space, increase security and reliability, and reduce cost of equipment and client access licensing
- Digi's patented RealPort® technology for COM or TTY port control and management
- 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
- 5-year warranty

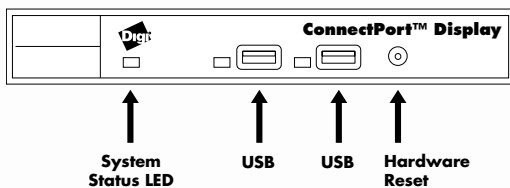


## + Specifications ::

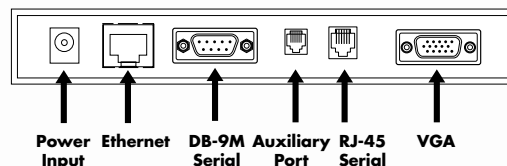


- 10/100Base-T Ethernet support
- RJ-45 Ethernet connector
- Analog VGA 15-pin D-Sub display connector
  - Resolutions up to 1600x1200
  - Up to 32-bit color level
  - Model dependent
- Additional peripheral device ports
  - 1 RS-232 serial DB-9
  - 1 RS-232 serial RJ-45
  - 2 USB Type A
  - Auxiliary port for special device powering
- 1 IP address per unit, static or DHCP
- Multiple units may be supported per server
- Field-upgradeable software and firmware
- Requires no Microsoft CAL license
- Robust terminal emulation for VT-220, Wyse 50 and other terminal devices
- Embedded VNC server enables remote IT personnel to monitor, manage and troubleshoot individual displays via an IP address

ConnectPort Display - Front



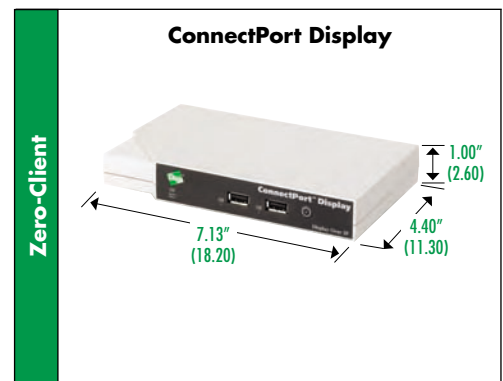
ConnectPort Display - Back



	Zero-Clients	ConnectPort Display
Remote Display Connectivity Features Chart	10/100Base-T	•
	Ethernet Port	1
	Analog VGA 15-Pin D-Sub Display Connector	1
	USB Ports	2 (Type A)
	Serial Ports	2
	Serial Type	RS-232
	Serial Connectors	DB-9, RJ-45
	RealPort	•
	Terminal Emulation	•
	Special Features	<ul style="list-style-type: none"> <li>• Compatible with RealVNC, UltraVNC and other open source VNC server applications</li> <li>• Compatible with Microsoft® Virtual Server, VMware and other server virtualization applications</li> </ul>

	Windows	Linux, Other UNIX Platforms	Mac OS <sup>o</sup>	DO5 <sup>†</sup>
ConnectPort Display*	•	•	•	•

\* Compatible with any server operating system supporting VNC server application.  
<sup>o</sup> USB displays and USB are both supported on Mac.  
<sup>†</sup> No RealPort support.



Measurements: inch (cm)

## Part Numbers ::

North America International

### Model

ConnectPort Display (2 USB, 2 serial, 1 VGA)

ConnectPort Display (2 USB, 2 serial, 1 high resolution VGA)

301-1180-01

CP-DIS-M22

301-2180-01

CP-DIS-M22-W

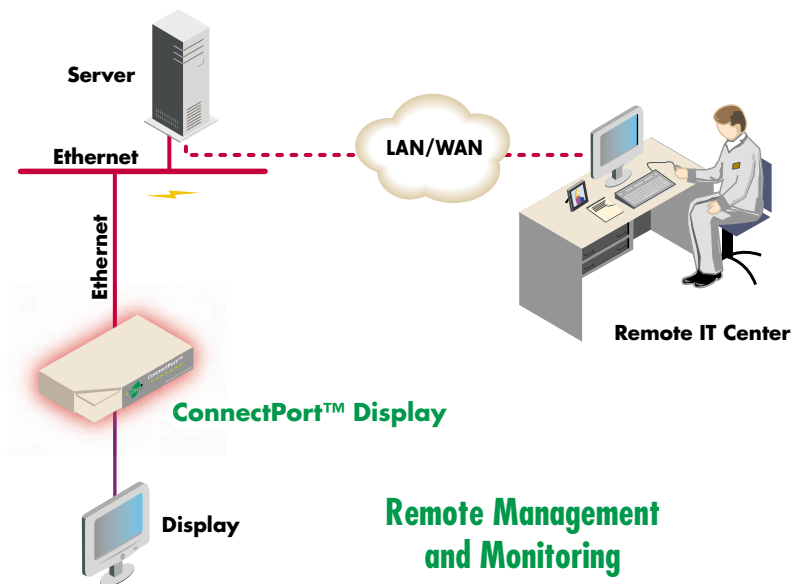
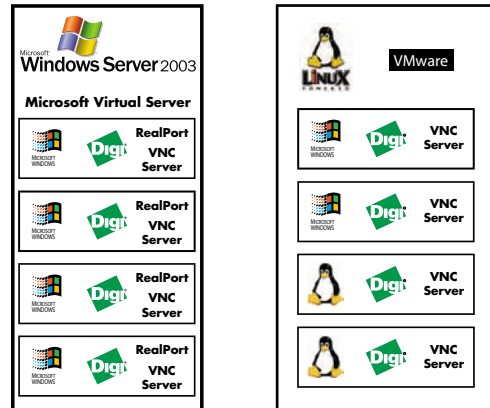


# Server Virtualization :: Management Tools/Special Features

**Overview** :: ConnectPort Display may be used to consolidate multiple client PCs onto a single or smaller number of PC servers by coupling its use with virtualization software packages such as Microsoft Virtual Server or VMware™ Server. These packages allow multiple virtual machines to run on a single physical PC. The ConnectPort Display and the peripheral devices connected to it then interact with a dedicated software application on each virtual machine instead of requiring a dedicated physical PC for each set of peripherals.

Using virtualization software with ConnectPort Display can result in significant cost savings in the hardware and maintenance required to support clusters of peripheral devices. Careful analysis of the licensing costs for operating systems on these virtual machines will result in the least expensive final solution.

PC consolidation may also be done by using a multi-user operating system such as Linux or other UNIX variants. With these operating systems, multiple clients may also be supported on a single physical server without requiring any virtualization software such as that described above.



# USB Connectivity

## Converters, Hubs, Modem Banks and More

Digi offers simple-to-install, high performance solutions for attaching serial, parallel, USB and modem devices to PCs, thin clients and servers via USB port expansion. Our product line includes USB-to-serial converters, network-enabled USB hubs, USB PlusPower hubs and cards, industrial USB hubs and USB modem banks. We also offer a Windows NT software stack available for licensing.

Feature rich design, reliable performance and unmatched operating system support make our USB solutions ideal for mission-critical applications including retail/POS, mobile computing, medical/healthcare and industrial automation. Digi's products are utilized in thousands of applications worldwide, including self-checkout systems, ATMs, emergency vehicles, hospital rooms, warehouses and manufacturing facilities, where failure and downtime are not options.



### What do you need to do?

- + Network-enable and remotely monitor a USB device via TCP/IP ..... **AnywhereUSB**
- + Add serial, parallel or USB ports to a PC, server or notebook, without opening the chassis, reconfiguring or rebooting ..... **Edgeport**
- + Eliminate individual power bricks for USB peripheral devices..... **USB Plus Series**
- + Utilize external V.92 modems for easy dial-up remote access ..... **Rapidport/4**
- + Connect industrial-grade USB peripheral devices to a legacy-free PC ..... **Hubport**
- + Add Windows NT compatibility to a USB device for large-scale installations ..... **EdgeUSB**

## + USB Connectivity – Converters, Hubs, Modem Banks and More

### USB Over IP® (RealPort® USB)

- AnywhereUSB® ..... pg. 104-105

### USB-to-Serial

- Edgeport® ..... pg. 106-109

### USB PlusPower

- USB Plus Series ..... pg. 110-111

### USB Modem Bank

- Rapidport/4® ..... pg. 112

### Industrial USB Hubs

- Hubport® ..... pg. 113

### Windows NT Software

- EdgeUSB ..... pg. 114

### Management Tools/Special Features

- RealPort USB (USB Over IP) ..... pg. 115

\* See page 132 for USB cameras and sensors.

	Edgeport Standard		Edgeport/1		Edgeport/2		Edgeport/4		Edgeport/4/DB-25		Edgeport/8		Edgeport/8/DB-25		Edgeport/8r		Edgeport/416		Edgeport/416/DB-25	
Serial Ports	1	2	4	4	8	8	8	16	16											
Serial Type	RS-232	RS-232	RS-232	RS-232	RS-232	RS-232	RS-232	RS-232	RS-232	RS-232	RS-232	RS-232	RS-232	RS-232	RS-232	RS-232	RS-232	RS-232	RS-232	RS-232
Serial Connector	DB-9M	DB-9M	DB-9M	DB-25M	DB-9M	DB-25M	RJ-45	DB-9M	DB-25M											
Downstream USB Ports								4	4											
Parallel Ports																				
Comments	• 2-meter captive cable version and bulk packs available											• 1U rack-mountable			• 1U rack-mountable			• 1U rack-mountable		

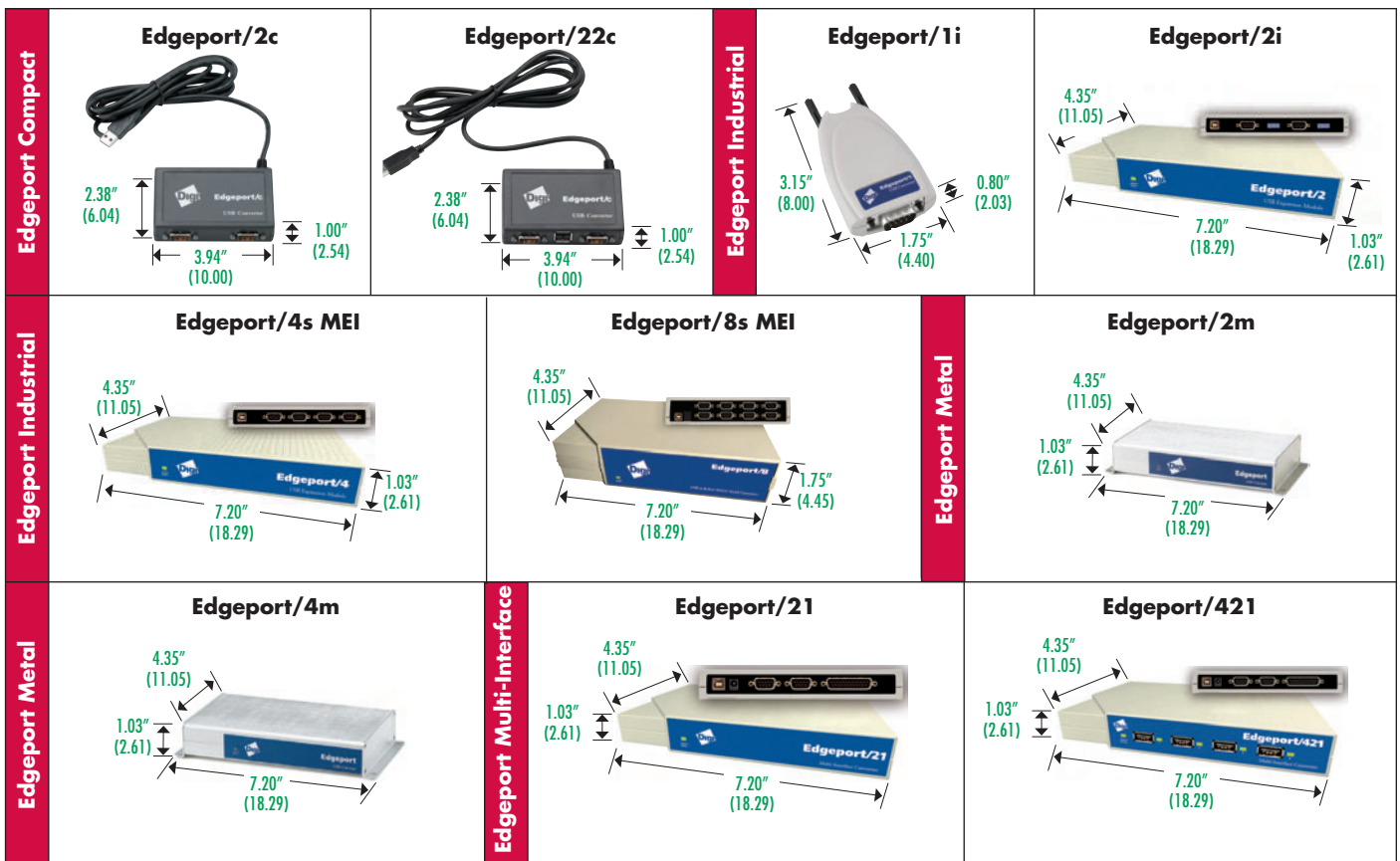
Edgeport Standard	<p><b>Edgeport/1</b></p>	<p><b>Edgeport/2</b></p>	<p><b>Edgeport/4</b></p>
	<p><b>Edgeport/4/DB-25</b></p>	<p><b>Edgeport/8</b></p>	<p><b>Edgeport/8/DB-25</b></p> <p>1U - rack mountable</p>
	<p><b>Edgeport/8r</b></p>	<p><b>Edgeport/416</b></p> <p>1U - rack mountable</p>	<p><b>Edgeport/416/DB-25</b></p> <p>1U - rack mountable</p>

Measurements: inch (cm)

\* 8.63" (21.92 cm) w/power supply tray

\*\* 19.00" (48.26 cm) w/optional rack mount ears

Edgeport Compact	Edgeport/2c	Edgeport/22c	Edgeport Industrial	Edgeport/1i	Edgeport/2i	Edgeport/4s MEI	Edgeport/8s MEI	Edgeport Metal	Edgeport/2m	Edgeport/4m	Edgeport Multi-Interface	Edgeport/21	Edgeport/421
2	2		1	2	4	8		2	4		2	2	
RS-232	RS-232		RS-422/485	RS-422/485	RS-232/422/485	RS-232/422/485		RS-232	RS-232		RS-232	RS-232	
DB-9M	DB-9M		DB-9M	DB-9M	DB-9M	DB-9M		DB-9M	DB-9M		DB-9M	DB-9M	
	2											4	
											1	1	
<ul style="list-style-type: none"> <li>• 2-meter captive cable</li> <li>• Compact form factor</li> </ul>	<ul style="list-style-type: none"> <li>• 2-meter captive cable</li> <li>• Compact form factor</li> </ul>			<ul style="list-style-type: none"> <li>• Software selectable serial type</li> </ul>	<ul style="list-style-type: none"> <li>• Software selectable serial type</li> </ul>		<ul style="list-style-type: none"> <li>• Rugged aluminum chassis</li> <li>• Detachable mounting brackets</li> </ul>	<ul style="list-style-type: none"> <li>• Rugged aluminum chassis</li> <li>• Detachable mounting brackets</li> </ul>					

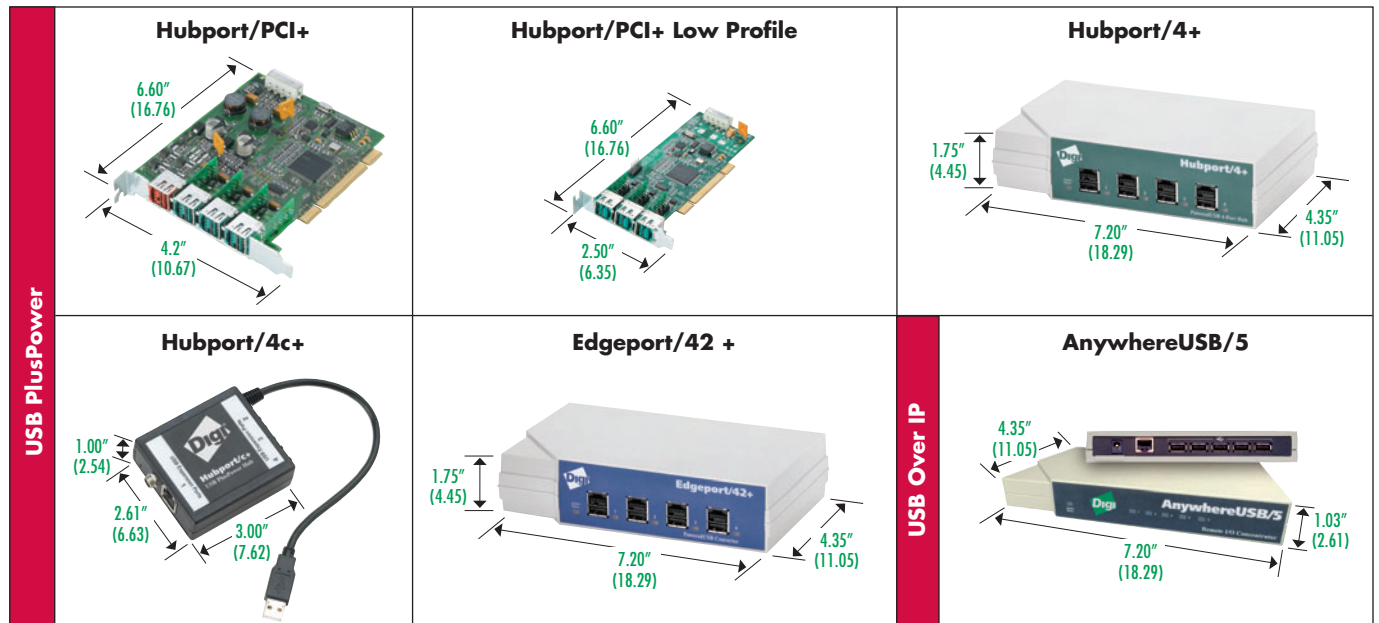


Measurements: inch (cm)

Edgeport ships with 1-meter detachable USB cable unless otherwise noted.



	USB Plus Series	Hubport/PCI+	Hubport/PCI+ LP	Hubport/4+	Hubport/4c+	Edgeport/42+
USB Features Chart	Ports	4 USB PlusPower	1/3 USB PlusPower	4 USB PlusPower	4 USB PlusPower	4 USB PlusPower, 2 RS-232 serial DB-9M
	Comments	<ul style="list-style-type: none"> <li>• 1 @ 24V</li> <li>• 3 @ 12V</li> <li>• Internally and externally powered models</li> <li>• Full-sized PCI</li> </ul>	<ul style="list-style-type: none"> <li>• 1 @ 24V (1-port version)</li> <li>• 3 @ 12V (3-port version)</li> <li>• Low profile PCI</li> </ul>	<ul style="list-style-type: none"> <li>• 1 @ 24V</li> <li>• 3 @ 12V</li> <li>• Externally powered</li> </ul>	<ul style="list-style-type: none"> <li>• 1 @ 24V</li> <li>• 3 @ 12V</li> <li>• Externally powered</li> <li>• Compact form factor</li> <li>• 10.0" (25 cm) captive cable</li> </ul>	<ul style="list-style-type: none"> <li>• 1 @ 24V</li> <li>• 3 @ 12V</li> <li>• Externally powered</li> </ul>
	USB Over IP	AnywhereUSB/5	USB RAS	Rapidport/4		
	Ports	5 USB 10/100Base-T Ethernet		4 V.92 modems, RJ-11 1 downstream USB		
	Comments	<ul style="list-style-type: none"> <li>• Connects to LAN via RJ-45 Ethernet</li> </ul>		<ul style="list-style-type: none"> <li>• On-board USB hub</li> <li>• Dual unit packaging available</li> </ul>		



Measurements:   inch  
                          (cm)

**Industrial USB Hubs**

Hubport/4c	Hubport/7c	Hubport/4cM DC	Hubport/4	Hubport/7
4 downstream USB, 1 upstream USB	7 downstream USB, 1 upstream USB	Compact metal chassis, 4 downstream USB, 1 upstream USB	4 downstream USB, 1 upstream USB	7 downstream USB, 1 upstream USB
<ul style="list-style-type: none"> <li>• Compact chassis</li> <li>• 10-26VDC powered models</li> <li>• 5V (w/AC adapter) models</li> <li>• USB 2.0</li> <li>• Locking power connector</li> </ul>	<ul style="list-style-type: none"> <li>• Compact chassis</li> <li>• 10-26VDC powered models</li> <li>• 5V (w/AC adapter) models</li> <li>• USB 2.0</li> <li>• Locking power connector</li> </ul>	<ul style="list-style-type: none"> <li>• Compact chassis</li> <li>• 10-26VDC powered</li> <li>• USB 2.0</li> <li>• Locking power connector</li> <li>• Ruggedized metal chassis</li> <li>• Mounting brackets</li> </ul>	<ul style="list-style-type: none"> <li>• 10-26VDC powered models</li> <li>• 5V (w/AC adapter) models</li> <li>• USB 1.1</li> </ul>	<ul style="list-style-type: none"> <li>• Locking power connector</li> <li>• 5V (w/AC adapter) models</li> <li>• 10-26VDC powered models</li> <li>• USB 1.1</li> </ul>

**Hubport/4c, Hubport/7c, Hubport/4c DC, Hubport/7c DC**

**Hubport/4cM DC**

**Hubport/7**

**Hubport/4**

**Rapidport/4**

\*See USB Plus Series for Edgeport with powered USB ports.

Measurements:    inch  
                          (cm)

	Windows Server 2003	Windows XP, XP Embedded	Windows NT, Windows NT Embedded*	Windows 2000/ME	Windows 98/95	Windows CE	Linux	Sun Solaris**
Edgeport	•	•	•	•	•	•	•	•
USB Plus Series	•	•	•	•	•	•	•	•
AnywhereUSB	•	•	•	•	•	•	•	•
Rapidport/4	•	•	•	•	•	•	•	•
Hubport	•	•	•	•	•	•	•	•

\* Our Windows NT drivers enable Digi USB solutions to work on Windows NT systems. They do not transfer Windows NT compatibility to the attached USB peripheral devices

\*\* Solaris driver (X86 only) supported by Sun Microsystems.



# AnywhereUSB® :: USB Over IP® (RealPort® USB)

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**Overview ::** AnywhereUSB is a network-enabled USB hub. It utilizes patented RealPort USB technology to connect USB devices anywhere on a TCP/IP network, without a locally attached host PC. This means you are no longer bound by the 16-foot USB cabling distance limitation. AnywhereUSB/5 offers five USB ports to connect bulk or interrupt type peripheral devices such as bar-code scanners and receipt printers, as well as our Watchport® USB cameras and sensors. AnywhereUSB is ideal for retail/POS and building automation/security applications.

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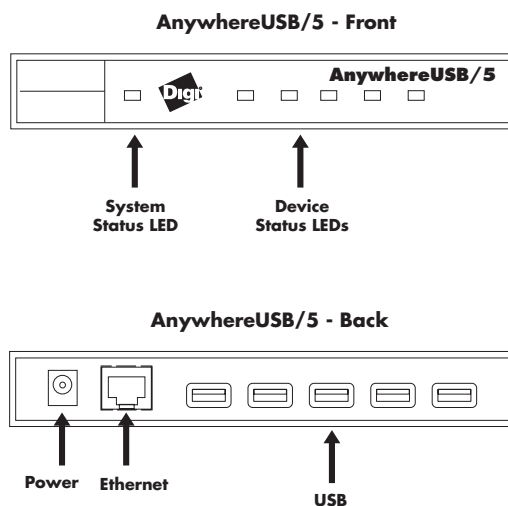
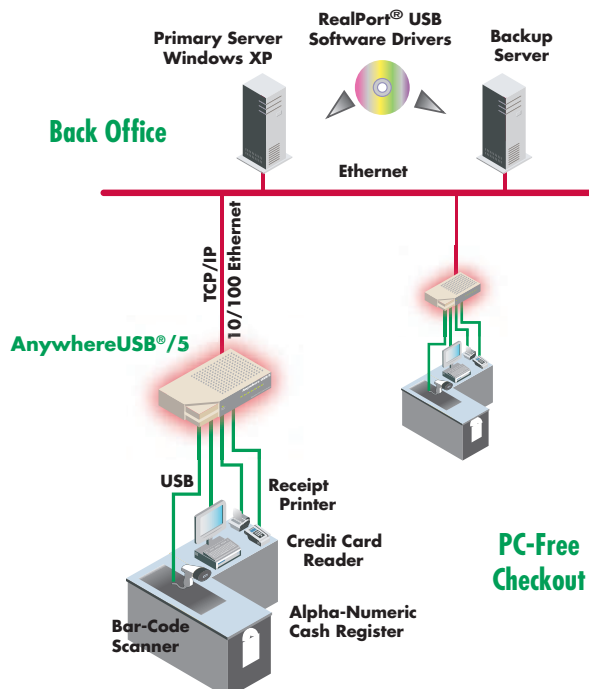
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## + Features ::

- Network-enables USB or other POS devices
- Works with Ethernet or wireless IP networks
- Extends USB cabling distance beyond 5 meters
- Works with existing application software, protecting technology investment
- USB ports appear to be locally attached and provide same Plug and Play experience as on-board USB ports
- Access and monitor USB devices over TCP/IP network connection from across the globe
- Windows NT USB stack included
- Allows PC to be remotely located
- Increases security and simplifies operations
- 5-year warranty

## + Specifications ::

- 10/100Base-T Ethernet with RJ-45 connector
- 5 USB ports
- USB 1.0, 1.1 and 2.0 compatible (USB 2.0 devices operate at 12 Mbps)
- Data rates up to 12 Mbps per USB port
- 500 mA downstream power per device
- Remote configuration utility
- Field-upgradeable software, firmware
- 1 static (fixed) IP address per unit
- LEDs for system and device status
- 2 Open Host Controller Interface (OHCI) controllers
- Multiple units supported on a single server
- Compatible with bulk and interrupt type USB devices; isochronous devices not supported at this time
- Compatible with Windows NT/NT Embedded, Windows Server 2003, Windows XP/XP Embedded and Windows 2000/Me





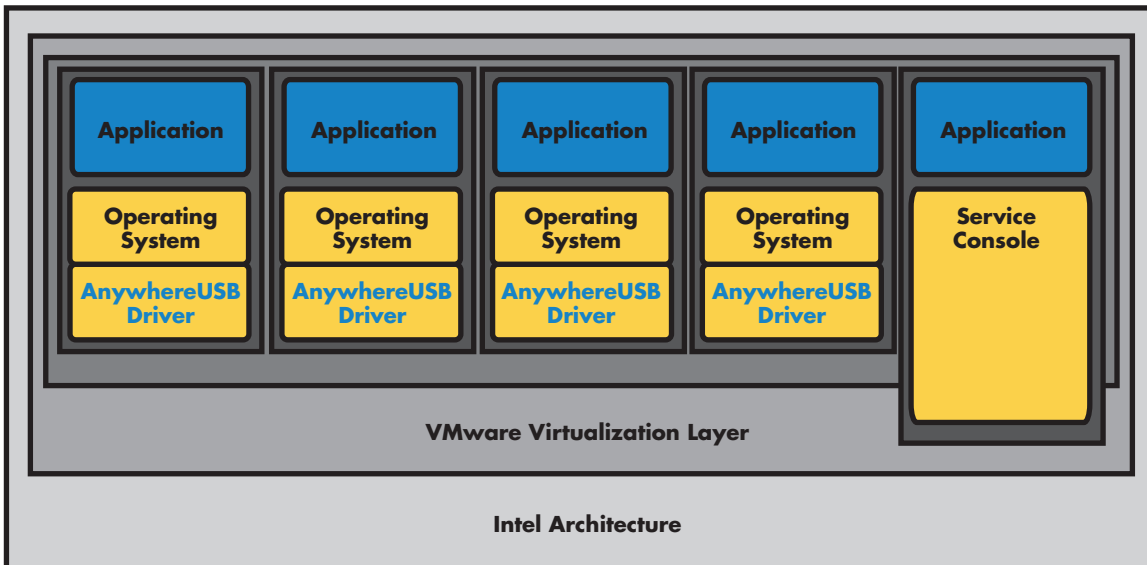
**Using AnywhereUSB with VMware® ESX Server**  
 You can use AnywhereUSB to send USB data over an Ethernet or wireless IP network to a virtual machine running on VMware ESX Server, so you can support nearly any USB device through the virtual machine's standard Ethernet interface.

AnywhereUSB supports USB at the level of the individual virtual machine. That is, each virtual machine that requires USB device support has one or more AnywhereUSB concentrators connected to that virtual machine. You install drivers for the concentrators in the guest operating system running in the virtual machine, as illustrated in the diagram below.

You then connect USB devices to a concentrator. The AnywhereUSB driver installed in the guest operating system manages the connection between the device and the guest.

Point-of-Sale system manufacturers can use AnywhereUSB and ESX Server to take the PC out of the checkout lane, creating smaller retail stations and simplifying operations with USB Over IP technology. It is also ideal for connecting USB software authentication dongles to virtual machines

For more information, including instructions for connecting AnywhereUSB to virtual machines, please see our white paper at [www.digi.com/pdf/wp\\_ESXServer\\_AnywhereUSB.pdf](http://www.digi.com/pdf/wp_ESXServer_AnywhereUSB.pdf).



**Part Numbers ::**

North America    International

**Model**

AnywhereUSB/5 - Ethernet to 5 USB ports

301-1130-01

301-2130-01

All cables and accessories: pg. 161.

# Edgeport® :: USB-to-Serial Converters



**Overview ::** Edgeport USB-to-serial converters offer easy 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. For maximum flexibility and scalability, Edgeport is available in multiple configurations including standard, compact, industrial, metal and multi-interface versions.

## + Features ::

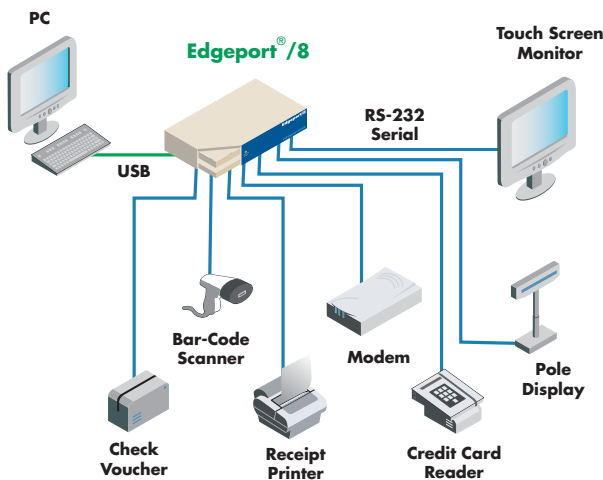
- Add up to 16 serial ports to a PC, thin client or server in minutes
- Unmatched OS support includes Windows NT/NT Embedded, Windows CE, Windows Server 2003, Windows 2000, Windows XP/XP Embedded, Windows 9x, Linux and Sun Solaris
- Multi-interface, software selectable RS-232/422/485, industrial, compact and metal versions
- Lower total cost of ownership with external, user-installable solution
- Ideal for point-of-sale, mobile computing, industrial automation, medical and more
- USB bus-powered; no power supply required on many models
- 5-year warranty



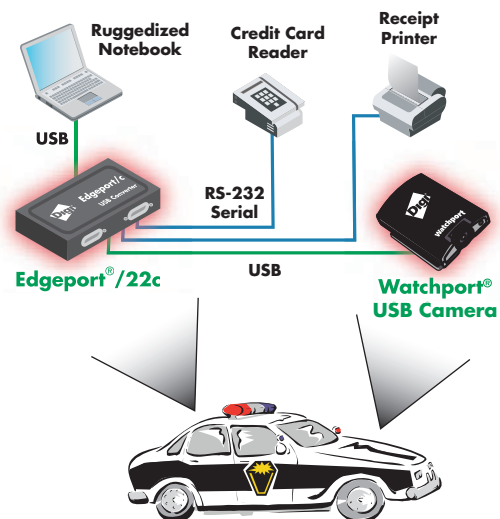
## + Specifications ::

- USB 1.0 and 1.1 compatible: backwards compatibility for 2.0
- USB-IF certified
- Plug and Play
- Baud rate to 230 Kbps on each serial port simultaneously
- Automatic port reacquisition after disconnect or reboot
- COM port assignments maintained across reboots
- Full hardware and software flow control
- Tri-state LED displays device status and COM port activity (except Edgeport/1 models)
- 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 available

### POS Connectivity



### Mobile Computing



## + Specifications cont.::

### Edgeport Standard

- 1, 2, 4, 8 or 16 RS-232 serial ports
- DB-9, DB-25 and RJ-45 connector options
- Models with on-board USB hub ship with external power supply

### 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

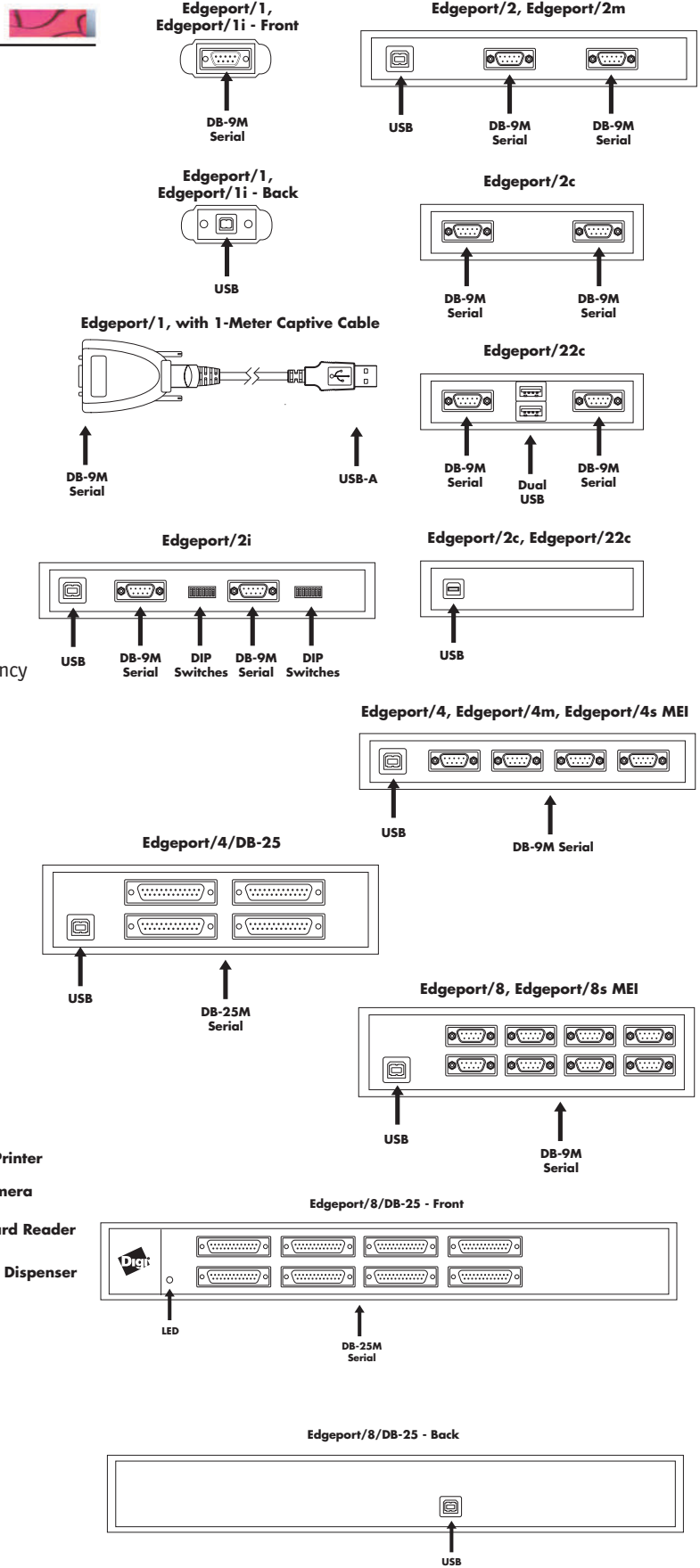
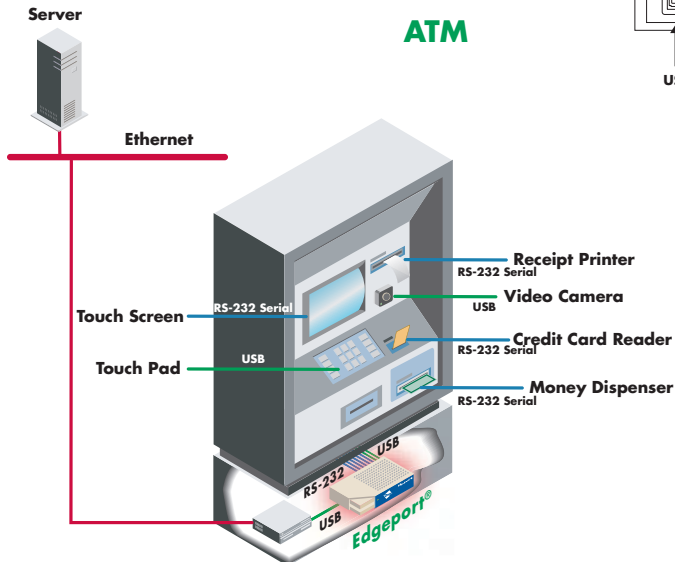
- 1, 2, 4 or 8 serial ports with DB-9 connectors
- RS-232/422/485 software selectable models

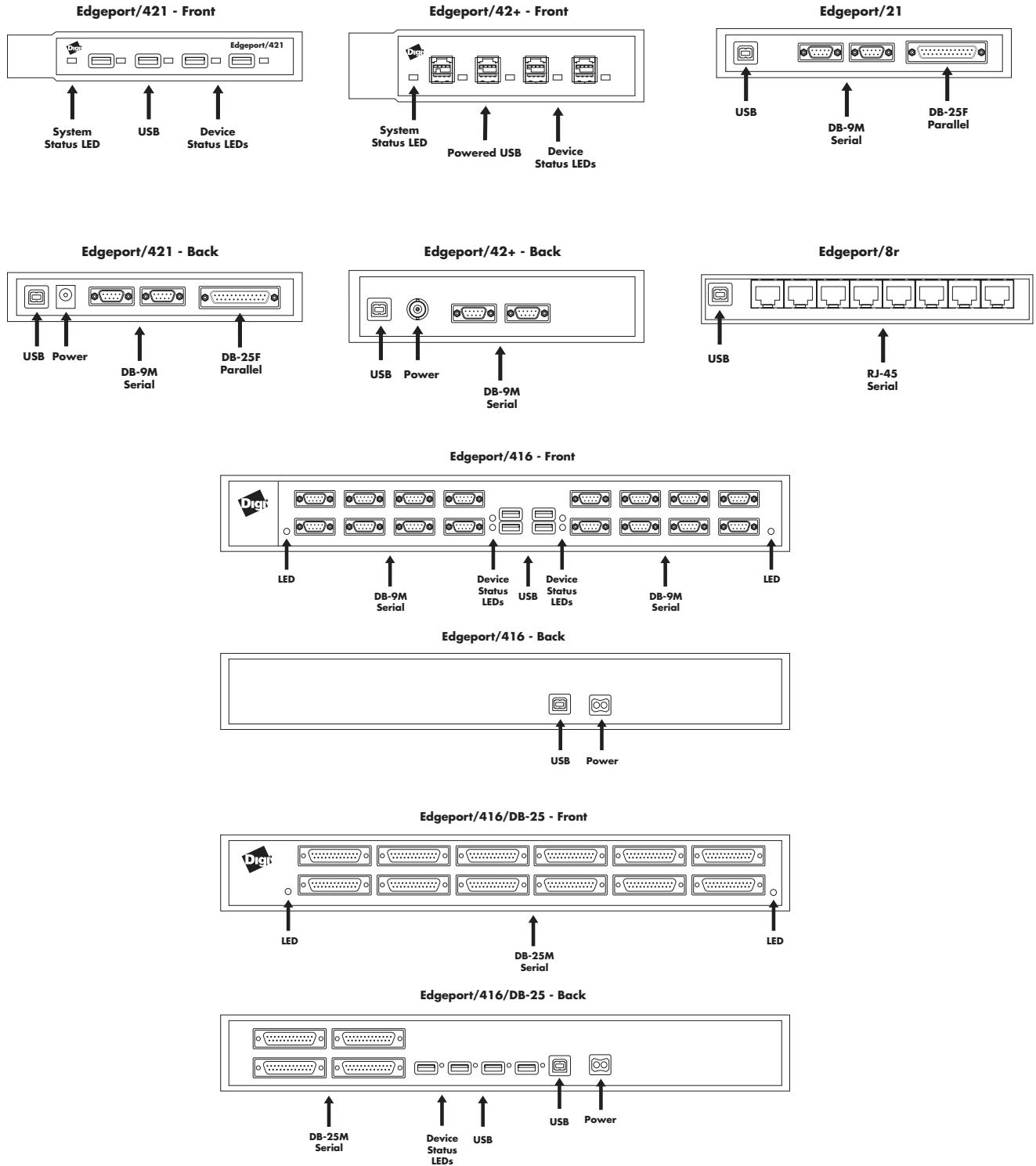
### Edgeport Metal

- 2, 4 or 8 serial ports with DB-9 connectors
- Rugged aluminum chassis
- Detachable mounting brackets
- Designed for demanding environments like emergency vehicles and restaurant kitchens

### 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





Unless otherwise indicated, each Edgeport (except Edgeport/1 and Edgeport/1i) includes one diagnostic LED on the front panel.

Part Numbers ::	North America	International
<b>Model</b>		
<b>Edgeport Serial</b>		
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/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
<b>Edgeport Compact</b>		
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
<b>Edgeport Industrial</b>		
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/4s MEI - 4 RS-232/422/485 DB-9 software selectable	301-1000-94	301-1000-94
Edgeport/8s MEI - 8 RS-232/422/485 DB-9 software selectable	301-1002-98	301-1002-98
<b>Edgeport Metal</b>		
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
<b>Edgeport Multi-Interface</b>		
Edgeport/21 - 2 serial DB-9, 1 parallel	301-1000-21	N/A
Edgeport/421 - 4 USB, 2 serial DB-9, 1 parallel	301-1004-21	N/A

All cables and accessories: pg. 161.

See USB Plus Series for powered USB version; pg. 110.

Serial ports are RS-232 unless otherwise specified.

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

# USB Plus Series :: Powered USB

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**Overview ::** USB PlusPower (powered USB) technology was developed as an alternative to externally powered USB devices. Its unique cabling allows higher power 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. Our hub and card solutions offer an easy way to create cost-effective Point-of-Sale (POS) and Point-of-Care (POC) systems that can handle the additional power voltage required for USB devices such as printers, signature capture devices and bar-code scanners.

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## + Features ::

- Eliminates individual power supply bricks for USB peripheral devices
- Enables USB bus powering at higher voltage levels than standard USB
- Internal card and external hub solutions for easy application customization
- Supplies power and communication signals over hot-pluggable USB PlusPower cable
- Enables a low-cost, standard PC to become a high-performance retail system
- Cable locking mechanism ensures secure connections
- Compatible with standard and powered USB peripheral devices
- Power balancing technology provides maximum power to 12V and 24V peripherals, without exhausting the host PC's 5/12V power
- Compact hub available for space-prohibitive applications
- Hub available with 2 RS-232 serial DB-9 ports to connect powered USB, standard USB and legacy serial devices in a single box
- 5-year warranty

## + Specifications ::

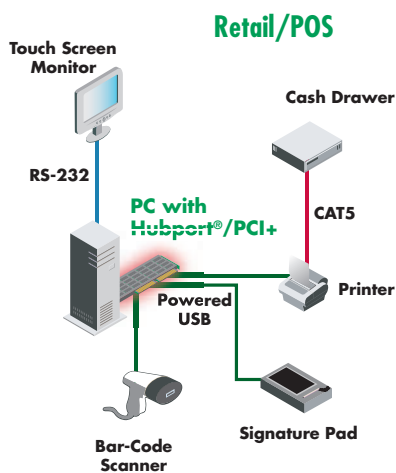
- Compatible with standard (type A) and locking powered USB connectors
- Power balancing technology for efficient power management
- Port level power management on select models
- Plug and Play
- Convection cooled design; no fans
- Full hardware and software flow control
- Meets power switching requirements of USB 1.1 specification
- Compatible with Windows Server 2003, Windows XP/XP Embedded, Windows NT/NT Embedded, Windows 2000/Me, Windows CE

### Hubport/PCI+

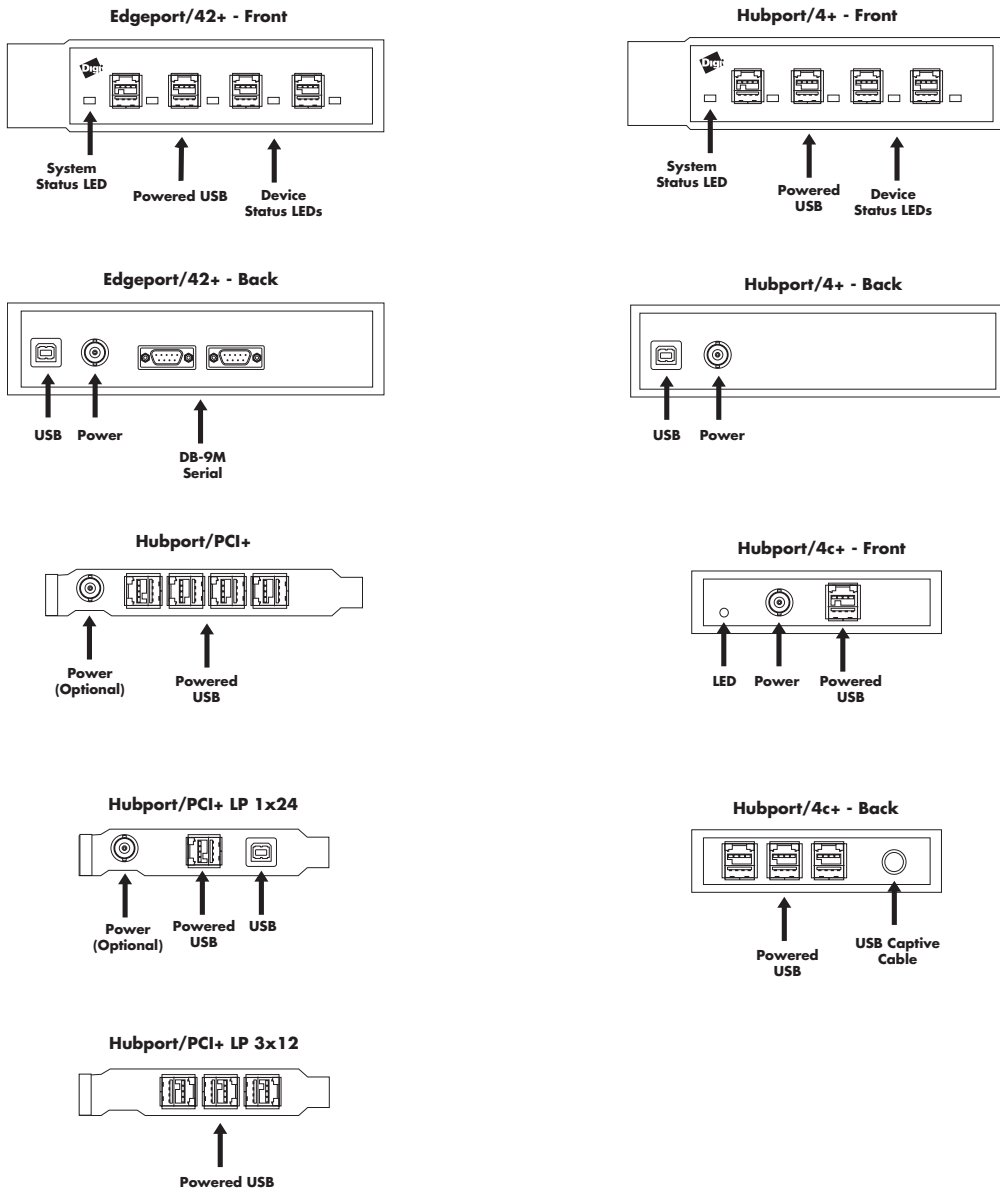
- Universal PCI (3.3V and 5.5V) card
- Full-size or low-profile
- 4 powered USB ports
- 2-card low-profile solution
  - 3 x 12V card
  - 1 x 24V card
  - Cards may be linked or stand alone
- USB 2.0 compatible
- Baud rates to 480 Mbps
- 2 power options
  - Full internal power
  - External power supply

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

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



# USB Plus Series :: Powered USB



To learn more about USB PlusPower technology, visit [www.usbpluspower.org](http://www.usbpluspower.org).

## Part Numbers :: North America    International

Model	North America	International
Edgeport/42+ - USB to 4-port powered USB hub; 2 serial DB-9; power supply	301-1001-42	301-2001-43
Hubport/4+ - USB to 4-port powered USB hub; power supply	301-1010-14	Not available
Hubport/PCI+ - PCI to 4-port powered USB card; internally powered	301-1150-01	301-1150-01
Hubport/PCI+ Power Supply - optional power supply for 301-1149-01	301-9007-01	Not available
Hubport/4c+ - USB to 4-port powered USB compact hub	301-1157-01	301-2157-01
Hubport/PCI+ LP 1x24V - Low Profile PCI - 1 x 24V	301-1170-01	301-1170-01
Hubport/PCI+ LP 3x12V - Low Profile PCI - 3 x 12V	301-1171-01	301-1171-01
Hubport/PCI+ LP 1x24V w/PS - Low Profile PCI - 1 x 24V w/power supply	301-1172-01	Not available
Hubport/PCI+ LP 1x24V w/cable - Low Profile PCI - 1 x 24V w/ribbon cable to 12V card	301-1173-01	301-1173-01

All cables and accessories: pg. 161.

# Rapidport/4<sup>®</sup> :: USB Modem Bank

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**Overview** :: Rapidport/4 offers an easy solution for remote access via Plug and Play USB connectivity. This external, user-installable solution plugs into the USB port of a PC, thin client or server and provides four 56K V.92 modems. The Rapidport/4 gives network users access to Internet Service Providers (ISPs), fax, and other group dial-up applications supported by Windows operating systems.

+

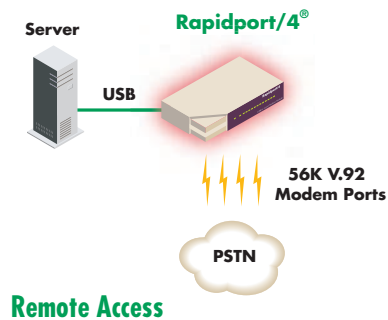
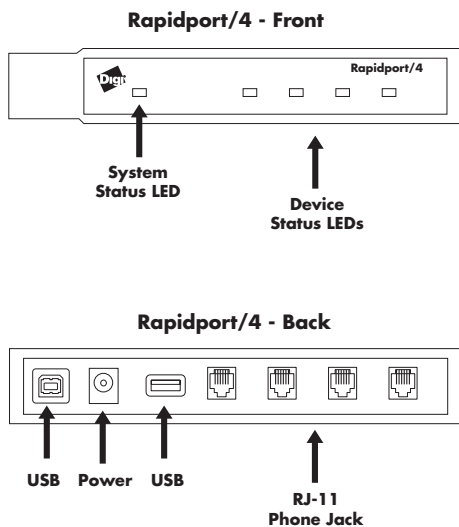
## + Features ::

- Add 4 56K V.92 modems to a PC, server or thin client in minutes
- Pool existing modem lines
- Give network users access to ISP, fax and other group dial-up applications supported by Windows operating systems
- Lower total cost of ownership with user-installable, external solution
- On-board USB hub to stack and daisy-chain up to 5 Rapidport/4 units per host
- 5-year warranty

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## + Specifications ::

- 4 56K modems with RJ-11 connectors
- Modem standards
  - Data 56K V.92, V.90 and enhanced V.34
  - Error correction: V.42
  - Data compression: MNP<sup>®</sup> Class 5; V.42bis
  - Fax: V.17, Group 3, Class 1 and 2
- USB 1.0 and 1.1 compatible; backwards compatibility for 2.0
- Plug and Play
- On board USB hub (type A downstream connector)
  - Stack and daisy-chain up to five Rapidport/4 units
  - Connect Edgeport USB-to-serial converter for serial device connectivity
- Front panel LEDs display modem and hub status
- No additional IRQ or memory address requirements
- Broad homologation
- Includes 1-meter USB cable and power supply
- Compatible with Windows Server 2003, Windows XP/XP Embedded, Windows NT/NT Embedded, Windows 2000/Me, Windows CE, Windows 9x and Linux



## Part Numbers ::

North America International

### Model

Rapidport/4 - USB to 4 56K V.92 modems; RJ-11  
 Rapidport/4 Dual Unit - 2 Rapidport/4 units

301-1012-04	Not available
301-1012-08	Not available

All cables and accessories: pg. 161.



# Hubport® :: Industrial USB Hubs

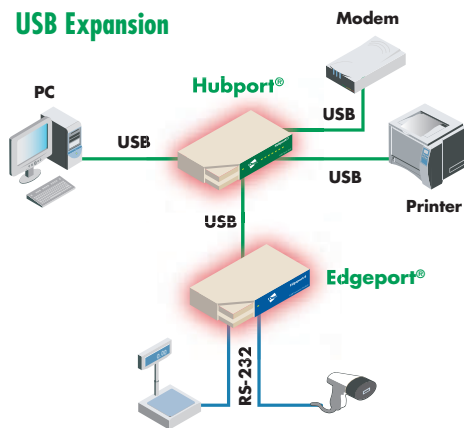
**Overview** :: The Hubport is an industrial-grade solution for adding USB ports to a PC or server. Available in four- and seven-port AC or DC powered models, the Hubport can be used to connect USB peripheral devices, or to stack and power any of our USB solutions.



## + Features ::

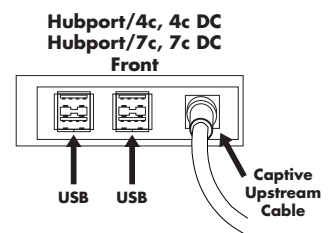
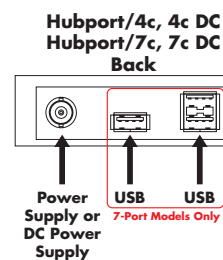
- Add USB ports to a PC, server or thin client in minutes
- 4- and 7-port USB 2.0 and 1.1 models to easily connect and power USB peripheral devices
- AC or DC powered models for standard or mobile deployment
- Maximum transfer rate on all ports simultaneously
- Locking power connector for solid power connection in environments with high vibration or other incidental contact (except Hubport/4)
- Individual port power management
- Compact chassis fits nearly anywhere
- Optional metal chassis for extra protection
- Also available in USB PlusPower (powered USB) models – see USB Plus Series on page 110
- 5-year warranty

### USB Expansion



## + Specifications ::

- 4 or 7 downstream USB ports
- USB 2.0, 1.1 and 1.0 compatible
- No additional IRQ or memory address requirements
- Individual port power management
- 500 mA downstream power available per port
- 10-26VDC powered models for mobile applications
- LEDs for system power and port status
  - 4-port models: 5 LEDs
  - 7-port models: 8 LEDs
- Multi-TT architecture guarantees 12 Mbps simultaneously on each downstream port
- Locking power connector
- Rack-mountable
- Plug and Play
- Hot-swappable
- Includes 1-meter USB cable and power supply
- Compatible with Windows, Linux and other operating systems



## Part Numbers ::

North America International

Model	North America	International
Hubport/4c (4-port USB 2.0 hub)	301-1010-45	301-2010-24
Hubport/7c (7-port USB 2.0 hub)	301-1010-75	301-2010-27
Hubport/4c DC - 4-port USB 2.0 hub, DC powered	301-1010-42	301-1010-42
Hubport/7c DC - 7-port USB 2.0 hub, DC powered	301-1010-72	301-1010-72
Hubport/4cM DC - 4-port USB 2.0 hub, DC powered, metal chassis	301-1010-34	301-1010-34
Hubport/4 - 4-port USB hub	301-1010-04	301-2010-04
Hubport/7 - 7-port USB hub	301-1010-07	301-2010-07
Hubport/4 DC - 4-port USB hub w/DC input power	301-1010-30	301-1010-30
Hubport/7 DC - 7-port USB hub w/DC input power	301-1010-70	301-1010-70

All cables and accessories: pg. 161.

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**Overview ::** All USB solutions from Digi include drivers that enable them to work with Windows NT and Windows NT Embedded systems. In addition, we offer the EdgeUSB software stack, which may be licensed by developers, integrators, and peripheral device manufacturers who wish to add Windows NT compatibility to a USB device for large-scale installations (typically 1,000+ seats).

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## + Features ::



- First and only USB software stack for Windows NT/NT Embedded that supports Windows Driver Model (WDM) driver architecture
- Provides binary compatibility with the USBDI interface supplied by Microsoft in Windows 95, Windows 98, Windows 2000 and Windows XP
- Permits existing WDM USB drivers to run on Windows NT with little or no modification
- Supports OHCI and UHCI host controllers, and up to 5 levels of hubs
- Field-tested compatibility with hundreds of desktop and mobile platforms
- Shipping since 1998 in thousands of installations – a robust, field-proven solution
- Successfully implemented in USB devices such as bar-code scanners, fingerprint readers, scanners and cameras

+

## + Specifications ::



- Full hot-swap Plug and Play support
- Compatible with USB v1.1 and 2.0 specs
- High performance (faster than Windows 98 stack)
- WDM USB drivers for Windows 95/98/2000 require little or no source code changes
- Supports USB 1.1 spec
- Complete Plug and Play functionality
  - Hot-insertion of devices
  - Hot-removal of devices (even while application has device open)
  - Dynamic loading and unloading of drivers
  - Initial installation of driver stack without rebooting
- Implements binary-compatible subset of Microsoft USBDI interface
  - Binary-compatible IRP (I/O Request Packet) parameter/request values
  - Binary-compatible URB (USB Request Block) structures and parameter/request values
  - Binary-compatible USBDLIB library functions
- Implements binary-compatible subset of Microsoft WDM Plug and Play interface
- Supports control, bulk and interrupt transfer types
- Fully interrupt-driven for high performance
- Supports unlimited number of concurrent overlapped requests from multiple drivers simultaneously
- Supports unlimited number of host controllers, hubs, devices and client drivers
- Optional user-mode background service can call user-mode DLLs on device insertion and/or removal
- Optional user-mode system tray applet for status and troubleshooting
- In many cases can run unmodified WDM driver binaries

## Part Numbers ::

Worldwide

### Model

EdgeUSB Software Stack License

Contact Us

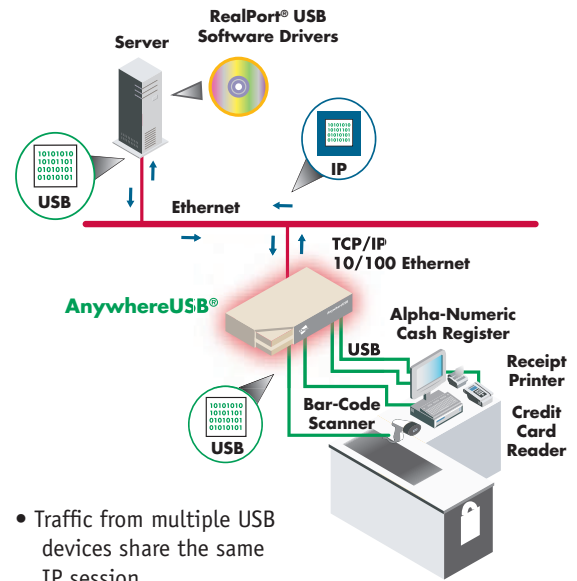
**Overview** :: Many of today's key business applications were written to talk to USB devices that are directly connected to servers. To serve their customers better, businesses have found it necessary to locate USB devices in places that are not always close to servers or PCs.

Using RealPort USB software in conjunction with the AnywhereUSB network-enabled USB hub, users can connect USB devices anywhere on the LAN. The solution is seamless – the USB devices appear as though they are plugged directly into the host PC, when in actuality they are connected to an AnywhereUSB somewhere on the network. This ensures compatibility with existing applications without any modifications.

RealPort USB software is unique among USB extender solutions. It is the only implementation that allows multiple connections to multiple USB ports over a single TCP/IP connection. This means that USB devices may be placed anywhere a network connection exists. Also, RealPort USB supports as many USB devices over the network as a server would if they were directly connected. Many USB extenders cannot use TCP/IP networks at all, making USB cabling clumsy and subject to reliability problems. Other USB extenders require a separate TCP/IP connection for each USB port, resulting in higher network overhead and more processing demands on the server.

RealPort USB also provides connection recovery – after a network interruption RealPort USB automatically reconnects the device to the server's USB port without the application knowing there was a failure. Finally, RealPort USB offers extensive operating system support including Microsoft® Windows Server™ 2003, Windows® XP, Windows 2000 and Windows NT®.

RealPort USB comes standard with Digi's AnywhereUSB network-enabled USB hub (see page 104).



- Traffic from multiple USB devices share the same IP session
- Multiple AnywhereUSB hubs connect to the same server

# Wireless

## Cellular, Wi-Fi®, ZigBee® and Proprietary RF

Digi's best-in-class wireless connectivity solutions provide the flexibility and scalability required in enterprise applications.

### Cellular

Digi's cellular products utilize high-speed wireless GSM and CDMA cellular networks to create reliable, secure Wireless WAN (WWAN) connections to remote assets for real-time two-way communications. Benefits of wireless communications include instant deployment, elimination of wiring costs and problems due to wire breaks, the failover for primary wireline connections, and the ability to move the connection virtually anywhere.

### Wi-Fi

Wi-Fi is a broad, LAN/WAN based protocol that allows devices to connect to a larger network. It enables PCs or other devices that are Wi-Fi enabled to connect to other devices with TCP/IP or other networking protocols. Devices connect wirelessly to an access point, allowing users to connect to a network, or view embedded device status and conditions from anywhere on the network. Typical connections are within 300 feet.

### ZigBee

ZigBee protocols utilize small, low-power radios based on the IEEE 802.15.4 standard to create Wireless Personal Area Networks (WPANs). ZigBee devices are designed for use in embedded applications that require low-cost, low-power wireless monitoring and controlling of electronic devices.

### Proprietary RF (Radio Frequency)

Digi's RF modems and bridges provide simple serial and Ethernet cable replacement using 900 MHz and 2.4 GHz frequency bands. In applications where connected devices are often moved or where deploying serial cable is costly, disruptive or impractical, Digi RF modems are a reliable alternative. Ethernet bridges replace Ethernet cables with a 900 MHz Ethernet repeater.

## What do you need to do?

- + Utilize 2.5G cellular data networks for connectivity to remote sites and devices..... [Digi Connect WAN Family](#)
- + Implement high performance remote networking with an upgradeable 3G wireless WAN cellular router with integrated VPN ..... [ConnectPort WAN VPN](#)
- + Add embedded 802.11b wireless connectivity to an electronic device ..... [Digi Connect Wi-ME/Wi-EM](#)
- + Design new embedded products with 802.11b/g capabilities..... [ConnectCore Wi-9C](#)
- + Connect RS-232/422/485 serial devices to a wireless network ..... [PortServer TS W MEI](#)
- + Manage and configure groups of devices across remote networks ..... [Digi Connectware Manager](#)
- + Add flexible, low-cost wireless ZigBee mesh networks ..... [XBee Family](#)
- + Replace serial cables between a host and connected serial device..... [XTend, XStream](#)

## + Wireless – Cellular, Wi-Fi, ZigBee and Proprietary RF

### Cellular

- Digi Connect® WAN Family .....pg. 122-123
- ConnectPort™ WAN VPN .....pg. 124-125

### Embedded 802.11b and 802.11b/g

- Digi Connect® Wi-ME .....pg. 126
- Digi Connect® Wi-EM .....pg. 126
- ConnectCore™ Wi-9C.....pg. 126

### External 802.11b

- PortServer® TS W MEI.....pg. 126
- Digi Connect® Wi-SP.....pg. 126

### Embedded RF Modules

- XBee™/XBee-PRO™ ZigBee/802.15.4 .....pg. 126
- XTend™ .....pg. 126
- XStream™ .....pg. 126
- XCite™ .....pg. 126

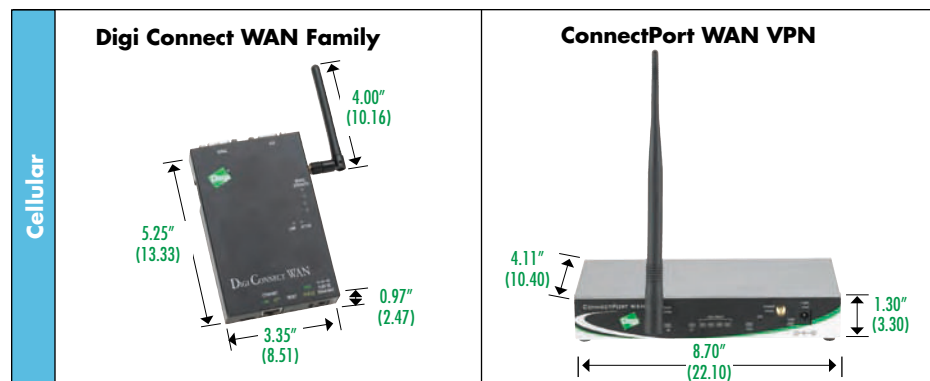
### External Proprietary RF Modems

- XTend™-PKG .....pg. 127
- XStream™-PKG.....pg. 128
- XPress™ Ethernet Bridge .....pg. 129

### Management Tools/Special Features

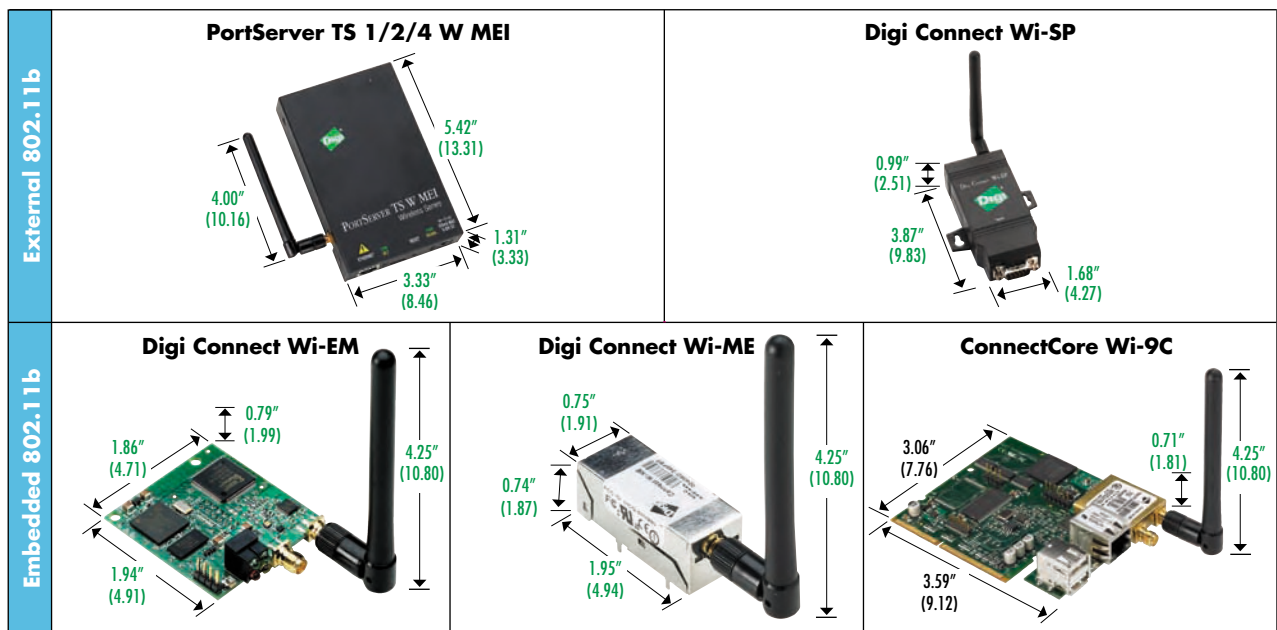
- Digi Connectware® Manager.....pg. 130
- Digi SureLink™ .....pg. 131

	Cellular	Digi Connect WAN	Digi Connect WAN VPN	Digi Connect WAN IA	Digi Connect WAN Sync	ConnectPort WAN VPN
Type of Device	Cellular router	Cellular VPN router	Industrial cellular router	Cellular VPN router	Upgradeable 3G cellular router with VPN	
10/100Base-T	•	•	•	•	4 switch ports	
Serial Ports	1	1	1	1	2	
USB Ports					2	
Serial Type	RS-232/422/485	RS-232/422/485	RS-232/422/485	Synchronous	RS-232	
Serial Connector	DB-9	DB-9	DB-9	DB-9	DB-9	
Air Interface	Embedded radio	Embedded radio	Embedded radio	Embedded radio	Upgradeable PCI Express module or PCMCIA card	
GSM GPRS/EDGE or CDMA 1xRTT	•	•	•	•	•	
UMTS/HSDPA or EV-DO Rev A					•	
NAT, Port Forwarding, DHCP Server/Client, IP Pass-Through, VPN Pass-Through, Firewall – IP Filtering	•	•	•	•	•	
Integrated IPsec VPN		•	•	•	•	
SSL, SSHv2, FIPS 197, HTTPS	•	•	•	•	•	
COM/TTY Driver	RealPort	RealPort	RealPort	RealPort	RealPort	
DIN Rail Mountable	•	•	• Kit included	•	•	
Built-in Web Interface, Digi Connectware Manager, Digi SureLink	•	•	•	•	•	
Special features			<ul style="list-style-type: none"> <li>Terminal block for power</li> <li>Modbus support</li> <li>Class 1, Div 2</li> </ul>	<ul style="list-style-type: none"> <li>Bisync protocol with 3270/3275 emulation</li> </ul>	<ul style="list-style-type: none"> <li>Support for internal cellular interfaces or external PC cards</li> <li>Integrated 4-port switch</li> <li>External antenna connections</li> <li>Support for Watchport USB camera</li> </ul>	



Measurements: inch (cm)

	External 802.11b	PortServer TS W MEI	Digi Connect Wi-SP	Embedded 802.11b, Embedded 802.11b/g	Digi Connect Wi-ME	Digi Connect Wi-EM	ConnectCore Wi-9C
10/100Base-T		•					•
802.11b		•	•		•	•	•
802.11b/g							•
WPA2/802.11i			•		•	•	•
Bluetooth							
Serial Ports		1/2/4	1/2		1	2	Up to 4
Serial Type		RS-232/422 /485	RS-232/422 /485		TTL	TTL	TTL
Serial Connector		RJ-45	DB-9		TTL	TTL	TTL
Max. Data Rate		115 Kbps	230 Kbps		230 Kbps	230 Kbps	230 Kbps
HTTP		•	•		•	•	•
HTTPS		•	•		•	•	•
SSL/TLS Encryption (DES/3DES/AES)		•	•		•	•	•
Other Encryption		•	•		•	•	•
COM/TTY Driver		RealPort with Encryption	RealPort with Encryption		RealPort with Encryption	RealPort with Encryption	RealPort with Encryption
Special Features			• Integration and Development Kits available		• Integration and Development Kits available	• Integration and Development Kits available	• Development Kits available



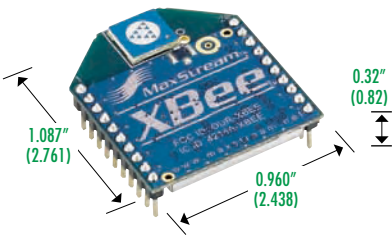
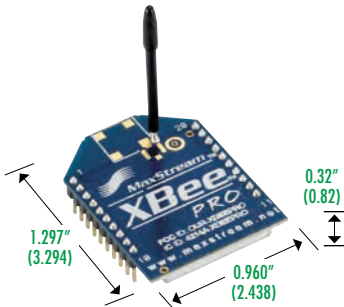
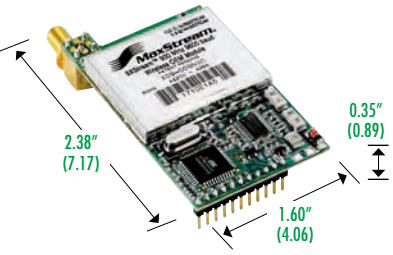


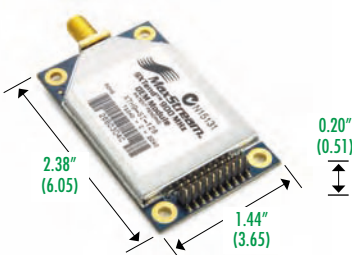
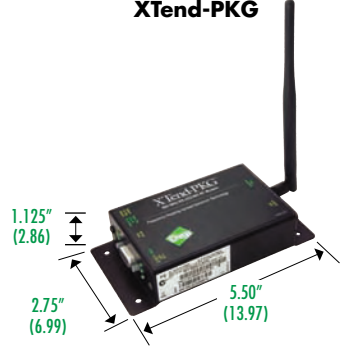
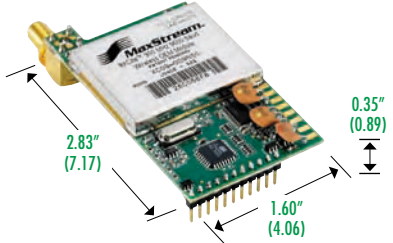
Measurements:    inch  
                          (cm)

See page 165 for antenna options.

	XTend-PKG (900 MHz)		XStream-PKG (900 MHz)		XStream-PKG (2.4 GHz)		XPress Ethernet Bridge	
Available Interfaces	RS-232/422/485, USB		RS-232/422/485, USB				Ethernet 10BaseT	
Transmit Power Output	1 Watt (30 dBm)		100 mW (20 dBm)	50 mW (17 dBm)		125 mW (21 dBm)		
Indoor/Urban Range	Up to 3000 ft (900 m)		Up to 1500 ft (450 m)	Up to 600 ft (180 m)		Up to 1000 ft (300 m)		
Outdoor RF Line-of-Sight Range	Up to 14 miles (22 km)		Up to 7 miles (11 km)	Up to 3 miles (5 km)		Up to 2 miles (3.2 km)		
Outdoor RF Line-of-Sight Range (w/High Gain Antenna)	Up to 40 miles (64 km) @ 9.6 Kbps RF data rate		Up to 20 miles (32 km)	Up to 10 miles (16 km)		Up to 15 miles (24 km)		
Serial Interface Data Rate (Software Selectable)	1.2-230.4 Kbps (non-standard baud rates also supported)		1.2-57.6 Kbps (non-standard baud rates also supported)				N/A	
Throughput Data Rate	9.6 Kbps	115.2 Kbps	9.6 Kbps	19.2 Kbps	9.6 Kbps	19.2 Kbps	850 Kbps	
RF Data Rate	10 Kbps	125 Kbps	10 Kbps	20 Kbps	10 Kbps	20 Kbps	1.5 Mbps	
Receiver Sensitivity	-110 dBm	-100 dBm	-110 dBm	-107 dBm	-105 dBm	-102 dBm	-97 dBm	
Frequency Range	905 - 925 MHz		910 - 917 MHz		2.45 - 2.46 GHz		903 - 925 MHz	
Channels (Software Selectable)	10 hop sequences share 50 frequencies		7 hop sequences share 25 frequencies				12 direct sequence channels	
Spread Spectrum Type	FHSS (Frequency Hopping Spread Spectrum)						DSSS (Direct Sequence Spread Spectrum)	
Encryption	AES 256-bit		N/A				128-bit	
Supported Network Types	Point-to-point, point-to-multipoint, peer-to-peer, repeater; mesh (XTend only)						Matched pair (point-to-point)	
Antenna Connector Options	RPSMA (Female)		RPSMA (Female)				RPTNC (Female)	
Operation Temperature	Industrial or tested industrial (-40° to 85° C)		Commercial (0° to 70° C), industrial or tested industrial (-40° to 85° C)				-40° C to 70° C	
Agency & Industry Approvals	FCC, IC, CID2, RoHS		FCC, IC, CID2, RoHS		FCC, IC, ETSI, CID2, RoHS		FCC, IC	
Supply Voltage	7-28 VDC		PKG-R: 7 to 18 V, PKG-U: 5 to 12 V, PKG-T, 7 to 28 V				4.5 to 9VDC	
Transmit Current	900 mA (@ 1W, 9600 bps)		PKG-R: 70 mA PKG-U: 185 mA PKG-T: 220 mA		PKG-R: 180 mA PKG-U: 200 mA PKG-T: 230 mA		350 mA	
Receive Current	110 mA		PKG-R: 70 mA PKG-U: 90 mA PKG-T: 140 mA		PKG-R: 90 mA PKG-U: 115 mA PKG-T: 160 mA		300 mA	
Low-Power/Sleep-Power Current	20 mA		PKG-R: 6 mA, PKG-U: 50 mA, PKG-T: N/A				N/A	

See page 57 for OEM RF Module features chart.



<p style="text-align: center;"><b>XBee</b></p>  <p style="text-align: right;">1.087" (2.761) 0.960" (2.438) 0.32" (0.82)</p>	<p style="text-align: center;"><b>XBee-PRO</b></p>  <p style="text-align: right;">1.297" (3.294) 0.960" (2.438) 0.32" (0.82)</p>	<p style="text-align: center;"><b>XStream</b></p>  <p style="text-align: right;">2.38" (7.17) 1.60" (4.06) 0.35" (0.89)</p>
<p style="text-align: center;"><b>XStream-PKG</b></p>  <p style="text-align: right;">1.125" (2.86) 2.75" (6.99) 5.50" (13.97)</p>	<p style="text-align: center;"><b>XPress Ethernet Bridge</b></p>  <p style="text-align: right;">1.32" (3.35) 3.25" (8.26) 5.24" (13.3)</p>	<p style="text-align: center;"><b>XTend</b></p>  <p style="text-align: right;">2.38" (6.05) 1.44" (3.65) 0.20" (0.51)</p>
<p style="text-align: center;"><b>XTend-PKG</b></p>  <p style="text-align: right;">1.125" (2.86) 2.75" (6.99) 5.50" (13.97)</p>		<p style="text-align: center;"><b>XCite</b></p>  <p style="text-align: right;">2.83" (7.17) 1.60" (4.06) 0.35" (0.89)</p>

Measurements:   inch  
                          (cm)

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**Overview ::** The Digi Connect WAN family of commercial-grade Wireless WAN cellular routers, gateways and VPN appliances provides secure 2.5G wireless connectivity to remote sites and devices. Digi Connect WAN cellular products can be used for reliable primary wireless network connectivity to equipment at remote locations, as well as for a backup to existing landline communications. They are also ideal for use where wired networks (e.g., leased line/frame relay, ISDN, DSL) are not feasible, or where alternative network connections are required.

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## + Features ::

- Hardware suite includes cellular gateways, routers and VPN devices
- GSM GPRS/EDGE or CDMA 1xRTT network for high speed wireless network connectivity
- Unique Digi SureLink™ “always-on” connection maintains wireless connection for rapid on-demand communications
- 10/100Base-T Ethernet and serial connections
- 9-30VDC for diverse power input
- Web interface for easy centralized console configuration and statistics
- Integrates with Digi Connectware® Manager for enterprise management/monitoring of hundreds or thousands of devices
- Up to 256-bit AES security provides encryption and authentication for management communications via Digi Connectware Manager
- Specialized models for industrial and synchronous applications
- 5-year warranty

## + Specifications::

### Ethernet Interface

- 1 RJ-45 connector
- 10/100Base-T

### Serial Interface

- 1 RS-232/422/485 (Digi Connect WAN, Digi Connect WAN VPN, Digi Connect WAN IA)
- 1 Sync/Bisync port (Digi Connect WAN Sync)
- Throughput up to 230 Kbps
- Hardware and software flow control

### RF Features (GSM Models)

- Network: Quadband 1900/850 and 1800/900 MHz GSM
- GPRS/EDGE
- EDGE class 10, GPRS class 12
- Throughput: Up to 240 Kbps, 100-130 Kbps typical
- RF antenna connector: 50 Ohm SMA
- Attached swivel dipole antenna

### RF Features (CDMA Models)

- Network: 800 MHz CDMA cellular, 1900 MHz CDMA PCS
- 1xRTT
- Throughput: Up to 153 Kbps, 60-80 Kbps typical
- RF antenna connector: 50 Ohm SMA
- Attached swivel dipole antenna

## + Specifications cont. ::

### VPN Features (Digi Connect WAN VPN, Digi Connect WAN IA, Digi Connect WAN Sync)

- IPsec with IKE/ISAKMP
- Multiple tunnel support
- DES, 3DES and AES up to 256-bit encryption

### IA Features (Digi Connect WAN IA only)

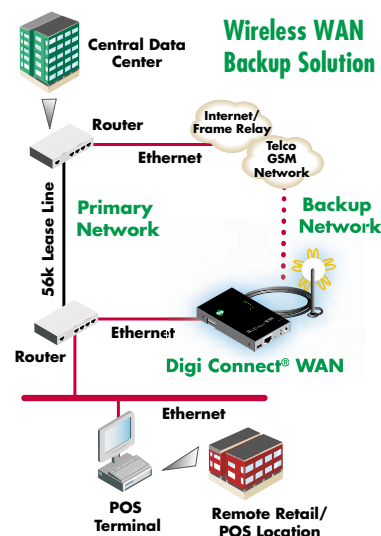
- DIN rail mounting kit included
- Class 1, Div 2 rating
- Terminal block for power
- Modbus to Modbus/TCP protocol conversion

### Other Features

- NAT
- Port forwarding
- IP pass-through, VPN pass-through
- Access control lists (IP filtering)
- SSL, SSHv2, FIPS 197 (serial connection)
- Operating temperature: -30° C to 60° C (-22° F to 140° F)
- HTTP for web management
- Optional secure enterprise management via Digi Connectware Manager

### Wireless Carrier Certifications

- Certified by most carriers; see [www.digi.com](http://www.digi.com) for complete listing.



## Digi Connect WAN

Wireless WAN cellular router. Provides high performance wireless TCP/IP data communications via cellular GSM/CDMA networks, for primary and backup connectivity to remote locations and devices.

## Digi Connect WAN VPN

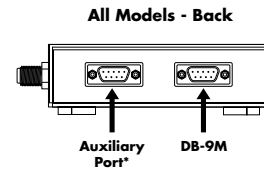
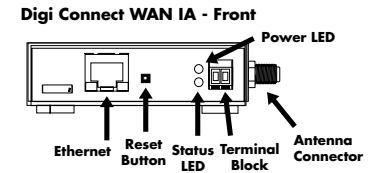
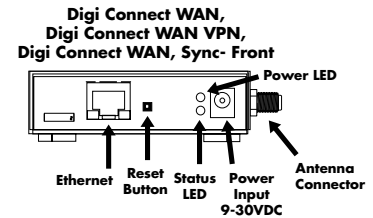
Wireless WAN GSM/CDMA cellular router plus integrated VPN. Creates a secure WAN connection via an Ethernet-to-cellular interface.

## Digi Connect WAN IA

Industrial-grade Wireless WAN GSM/CDMA router/gateway. Offers all of the functionality of Digi Connect WAN VPN plus an industrial-grade feature set.

## Digi Connect WAN Sync

Wireless WAN cellular router with support for legacy synchronous serial devices. Connects to remote synchronous devices such as ATMs using standard GSM/CDMA networks.



\*Digi Connect WAN IA and Digi Connect WAN Sync do not include an auxiliary port

## Part Numbers ::

North America International

### Digi Connect WAN

Digi Connect WAN VPN GSM Global Quadband GPRS Class 12, EDGE Class 10 w/Antenna	DC-WAN-GE10A	DC-WAN-GE10A-W
Digi Connect WAN CDMA w/Antenna - Sprint	DC-WAN-S1XA	N/A
Digi Connect WAN CDMA w/Antenna - Verizon	DC-WAN-D111	N/A
Digi Connect WAN CDMA w/Antenna - Centennial	DC-WAN-D112	N/A

### Digi Connect WAN VPN

Digi Connect WAN VPN GSM Global Quadband GPRS Class 12, EDGE Class 10 w/Antenna	DC-VPN-GE10A	N/A
Digi Connect WAN VPN CDMA w/Antenna - Sprint	DC-VPN-S1XA	DC-VPN-S1XA-W
Digi Connect WAN VPN CDMA w/Antenna - Centennial	DC-VPN-C1XA	N/A
Digi Connect WAN VPN CDMA w/Antenna - Verizon	DC-WAN-D311	N/A
Digi Connect WAN VPN CDMA w/Antenna - Bell Mobility	DC-WAN-D318	N/A

### Digi Connect WAN IA

Digi Connect WAN IA GSM Class 10 EDGE Class 12 GPRS	DC-WAN-F501	DC-WAN-F501
- Industrial Cellular Router w/Antenna (no power supply)		
Digi Connect WAN IA CDMA 1xRTT Sprint	DC-WAN-G510	N/A
- Industrial Cellular Router w/Antenna (no power supply)		
Digi Connect WAN IA CDMA 1xRTT Verizon	DC-WAN-G511	N/A
- Industrial Cellular Router w/Antenna (no power supply)		
Digi Connect WAN IA CDMA 1xRTT Bell Mobility	DC-WAN-G518	N/A
- Industrial Cellular Router w/Antenna (no power supply)		

### Digi Connect WAN Sync

Digi Connect WAN Sync GSM	DC-WAN-K401	N/A
Digi Connect WAN Sync CDMA 1xRTT - Sprint	DC-WAN-M410	N/A

### Antennas

Dual Band Wireless 7" Dipole Antenna	DC-ANT-DBDP3	DC-ANT-DBDP3
Dual Band Wireless 2" Monopole Antenna	DC-ANT-DBMP	DC-ANT-DBMP-W
Dual Band Wireless Desktop 2.8" - Antenna w/8 ft. Cable	DC-ANT-DBDT	N/A
Dual Band Wireless High Gain 14" - Antenna w/Magnetic Mount	DC-ANT-DBHG	N/A

### Accessories

Extended Temperature Power Supply	76000717	76000717
12VDC Locking Barrel Extended Temperature Hardened Power Supply	76000652	76000652
DB-9F to DB-9F Crossover Cable (4 ft.)	76000642	76000642
DIN Rail Mounting Bracket	76000682	76000682
48VDC to 12VDC Power Converter	76000696	76000696

# ConnectPort™ WAN VPN :: Upgradeable 3G Cellular Router

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**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 secure alternative network connections are required.

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## + Features ::

- Commercial-grade high speed 3G cellular router
- Easily upgradeable wireless modules or PCM/CIA Cards
- Air support for GSM GPRS/EDGE/UMTS/HSDPA and CDMA 1xRTT/EV-DO Rev A
- 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
- Applications include utilities, industrial automation, POS/retail, financial (ATMs), traffic, medical, video surveillance and more.
- 5-year warranty

## + Specifications ::

### Ethernet Interface

- 4 switch ports (RJ-45)
- 10/100Base-T

### Serial Interface

- 2 RS-232 serial ports (DB-9)
- Throughput up to 230 Kbps
- Hardware and software flow control

### USB Interface

- 2 USB Type A connectors

### Upgradeable Interfaces

- PCI Express Module
- 16/32-bit PCMCIA Card slot

### Supported Air Interfaces

- Sierra Wireless 5725 Rev A EV-DO PCI-Express Module - Sprint/Verizon
  - DualBand 800/900 MHz with RX Diversity
- Sierra Wireless 8775 3.6 HSDPA PCI Express Module
  - UMTS/HSDPA 850/1900/2100 MHz, GSM GPRS/EDGE 850/950/1800/1900 MHz
- Sierra Wireless Aircard UMTS/HSDPA PCMCIA Card
  - 875 - Worldwide Carriers
  - 860 - North American Carriers
  - 850 - European Carriers

### VPN Features

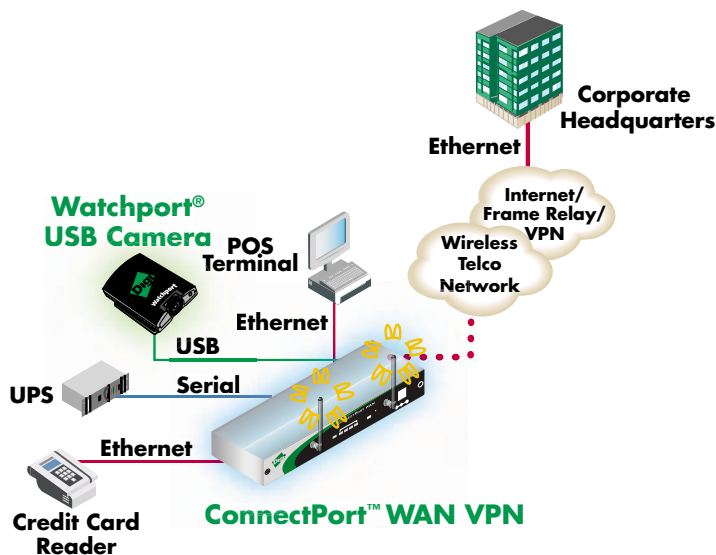
- IPsec with IKE/ISAKMP
- Multiple tunnel support
- DES, 3DES and up to 256-bit AES Encryption
- VPN pass-through, GRE

### Security

- SSL, SSHv2, FIPS 197

### Other Features

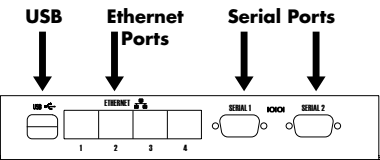
- Network protocols: UDP/TCP, DHCP
- Operating temperature: 30° C to 60° C (-22° F to 140° F)
- Status LEDs: Ethernet, power on, cellular link/activity, signal strength (4 bars)
- RealPort COM port redirector and RFC2217



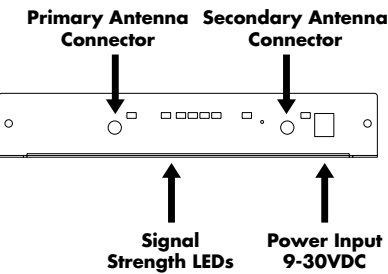
**ConnectPort WAN VPN**

Enterprise class, upgradeable 3G router. Provides high performance, secure wireless communications over cellular networks for connecting remote sites and devices. Ideal for utilities, industrial automation, retail/POS, financial (ATMs), traffic, medical, video surveillance and more.

**ConnectPort WAN VPN - Back**



**ConnectPort WAN VPN - Front**



**+ Specifications cont. ::**

- NAT, port forwarding, access control lists (IP filtering), IP pass-through
- HTTP/HTTPS web interface
- Optional secure enterprise management
- Optional Watchport® USB camera support

**Wireless Carrier Certifications**

- Please see [www.digi.com](http://www.digi.com) for full listing of cellular carriers.

**What Makes ConnectPort WAN VPN Commercial Grade?**

Enclosed module/PC Card prevents theft/damage	Sturdy metal case for industrial applications
Rugged external antenna provides standardized connections for maximum signal strength	Extended temperature specs (-30° C to 60° C) for hardened environments
RealPort® for optimized cellular connectivity to serial devices	Digi SureLink™ uses 3-way method to provide “always-on” communications
VPN for maximum security	External LEDs for cellular/Ethernet status and signal strength ensure instant feedback for site surveys and troubleshooting
Digi Connectware® Manager	The only truly enterprise class remote device management software available for cellular routers

**Part Numbers ::**

North America International

Model	North America	International
ConnectPort WAN VPN EV-DO Rev A (Verizon Wireless) - Embedded PCI Express Verizon 5725 module with 2 antennas	CP-WAN-B311-A	N/A
ConnectPort WAN VPN EV-DO Rev A (Sprint) - Embedded PCI Express Sprint 5725 module	CP-WAN-B310	N/A
ConnectPort WAN VPN EV-DO Rev A (Sprint) - Embedded PCI Express Sprint 5725 module; 2 antennas included	CP-WAN-B310-A	N/A
ConnectPort WAN VPN - Intended for PC cards; no PC card included	CP-WAN-A300	CP-WAN-A300-W
ConnectPort WAN VPN HSDPA - Embedded 3.6 HSDPA PCI Express 8775 module	CP-WAN-B302	CP-WAN-B309-W
ConnectPort WAN VPN HSDPA (Cingular/ATT) - Antenna included	CP-WAN-B302-A	N/A
ConnectPort WAN VPN HSDPA (Generic) - Antenna included	CP-WAN-B301-A	N/A

## Embedded 802.11b / 802.11b/g :: Wireless Embedded Modules

### Digi Connect® Wi-ME :: Please see pages 48-49 for complete details.

Fully customizable and secure 802.11b wireless embedded module in an extended RJ-45 form factor is pin-compatible with Digi Connect ME®.

- Wireless 802.11b network interface
- 1 high-speed TTL serial interface
- 4 MB Flash memory, 8 MB SDRAM
- Radio pre-certified in North America, EU and Japan

### Digi Connect® Wi-EM :: Please see pages 50-51 for complete details.

Fully customizable and secure 802.11b wireless embedded module in a compact board form factor is pin-compatible with Digi Connect EM®.

- Wireless 802.11b network interface
- 2 high-speed TTL serial interfaces
- 4 MB Flash memory, 8 MB RAM
- Radio pre-certified in North America, EU and Japan

### ConnectCore™ Wi-9C :: Please see pages 53 for complete details.

High-performance and secure 802.11b/g core module with ARM9 main processor performance is pin- and software-compatible with ConnectCore 9C.

- Connector and antenna population options to meet exact application requirements
- Wireless 802.11b/g network interface
- Integrated USB and RJ-45 Ethernet connectors
- Up to 4 serial interfaces
- Up to 256 MB Flash memory, 128 MB SDRAM
- Radio pre-certified in North America, EU and Japan

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## External 802.11b :: Wireless Serial Servers and LAN Adapters

### PortServer® TS W MEI :: Please see page 24 for complete details.

Designed to easily integrate any RS-232/422/485 serial device to an 802.11b wireless Ethernet network where wired LANs are not feasible or where serial devices are periodically moved.

- Switch selectable RS-232/422/485 for simple interfacing to any type of serial device
- Wired Equivalent Privacy (WEP) and Wi-Fi Protected Access (WPA) support
- Easy configuration through web browser interface (HTTP)

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### Digi Connect® Wi-SP :: Please see page 30 for complete details.

Flexible and secure 802.11b wireless serial server in a compact off-the-shelf platform.

- Compact design with integrated mounting tabs
- Switch selectable RS-232/422/485 interface
- Enterprise-class WPA2/802.11i wireless security
- Product integration and customization flexibility

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## Embedded RF Modules

### Please see page 59-62 for complete details.

Designed to easily add a variety of wireless connectivity solutions to any serial device.

- 900 MHz and 2.4 GHz solutions
- Secure and reliable communications
- Long, medium and short range solutions
- ZigBee/802.15.4 and license-free proprietary RF modules

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**Overview** :: XTend-PKG RF modems provide everything needed for out-of-the-box serial cable replacement, enabling long range wireless connectivity of electronic devices across a broad range of applications. Data security is provided by 256-bit AES encryption (128-bit AES is available outside of North America). If more advanced functionality is required, the modems support an extensive set of AT and binary commands.

## + Features ::

- Low power consumption for power-sensitive applications
  - Pin, serial port and cyclic sleep modes available
- Models with RS-232/422/485 serial or USB interfaces
- Durable industrial grade enclosure
- Optional NEMA 4 enclosure
- Streaming, acknowledged and multi-transmit modes
- Easy out-of-the box operation—no configuration necessary
- OEM RF modules and development kits also available
- 5-year warranty

## + Specifications ::

### Performance

- Transmit power output: 1 mW to 1 W (0 to 30 dBm), software selectable
- Indoor/Urban range: Up to 3000 ft (900 m)
- Outdoor/RF line-of-sight range: Up to 40 mi (64 km)
- RF data rate: 9.6 or 115.2 Kbps
- Interface data rate: up to 230.4 Kbps
- Operating frequency: 900 MHz
- Receiver sensitivity: -110 dBm (@9600 bps)
- Operating temperature: -40° C to 85° C (Industrial)

### Connection Outputs

- RS-232/422/485, DB-9 (XTend-PKG-R)
- USB (XTend-PKG-U)
- RS-232/422/482, DB-9/screw terminal (XTend-PKG-NEMA)

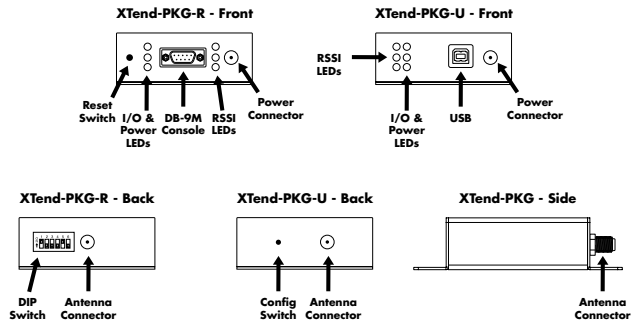
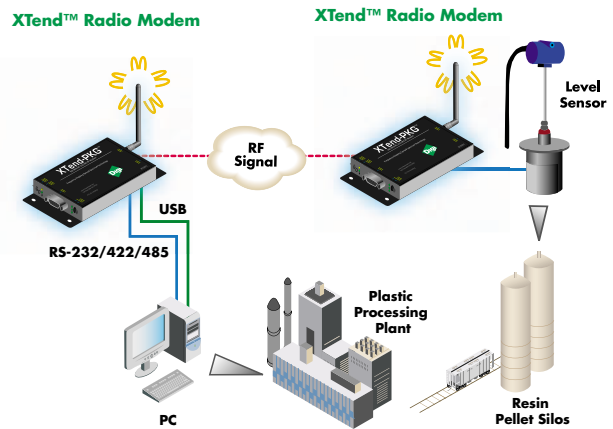
### Networking

- FHSS (Frequency Hopping Spread Spectrum)
- Networking topology: Peer-to-peer, point-to-point, point-to-multipoint, repeater, mesh
- Error handling: Retries and acknowledgements, multiple transmissions
- Filtration options: VID (Vendor ID Number), channels and addressing



## + Specifications (cont.) ::

- Frequency hopping channel capacity: 10 hop sequences share 50 frequencies
- Addressing: 65,000 network addresses available for each channel
- Encryption: 256-bit AES



## Part Numbers ::

North America International

### Model

See page 199-200 for part numbers.

See page 60 for XTend OEM RF modules.

# XStream™-PKG :: Proprietary RF Modems

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**Overview** :: XStream-PKG RF modems can be configured in minutes to provide low-cost serial cable replacement between all types of electronic devices. Available in 900 MHz and 2.4 GHz models, they provide transmission ranges of up to 20 miles. XStream-PKG RF modems are coupled with a DIP-switchable RS-232/422/485 interface board and outperform more expensive RF modems.

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## + Features ::

- 900 MHz and 2.4 GHz models
- Durable industrial-grade enclosure
- Easy out-of-the box operation—no configuration necessary
- Low power consumption for power-sensitive applications
  - Pin, serial port and cyclic sleep modes available
- Streaming and acknowledged modes
- Performs retries and acknowledgments for reliable packet delivery
- OEM RF modules and development kits also available
- 5-year warranty

## + Specifications cont. ::

- Error handling: Retries and acknowledgements
- Filtration options: VID (Vendor ID Number), channels and addressing
- Frequency hopping channel capacity: 7 hop sequences share 25 frequencies
- Addressing: 65,000 network addresses available for each channel

## + Specifications ::

### Performance

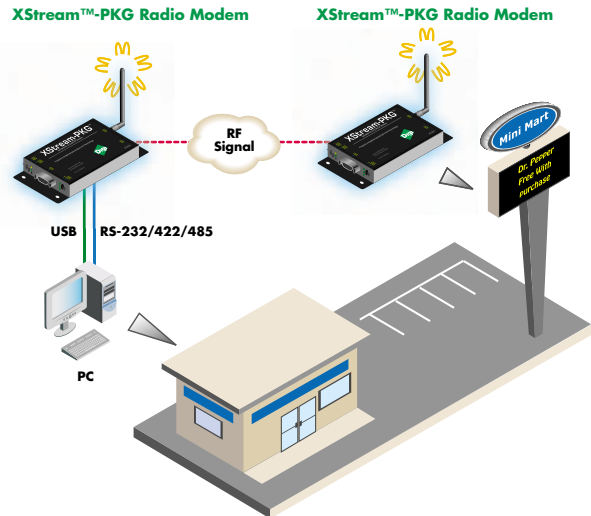
- Operating frequency: 900 MHz or 2.4 GHz
- Transmit power output: 100 mW/20 dBm (900 MHz); 50 mW/17 dBm (2.4 GHz)
- Indoor/Urban range: 1500 ft/450 m (900 MHz); 600 ft/180 m (2.4 GHz)
- Outdoor/RF line-of-sight range: 20 mi/32 km (900 MHz); 10 mi/16 km (2.4 GHz)
- RF data rate: 9.6 or 19.2 Kbps
- Interface data rate: up to up to 57.6 Kbps
- Receiver sensitivity (@9600 bps): -110 dBm (900 MHz); -105 (2.4 GHz)
- Operating temperature: -40° C to 85° C (Industrial); except USB model (0 to 70° C)

### Connection Outputs

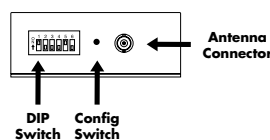
- RS-232/422/485, DB-9 (XStream-PKG-R)
- USB (XStream-PKG-U)
- RJ-11 telephone (XStream-PKG-T)

### Networking

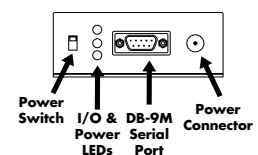
- FHSS (Frequency Hopping Spread Spectrum)
- Networking topology: Peer-to-peer, point-to-point, point-to-multipoint, repeater



XStream-PKG-R - Back



XStream-PKG-R - Front



## Part Numbers ::

North America International

### Model

See page 198-199 for part numbers.

See page 61 for XTend OEM RF modules.

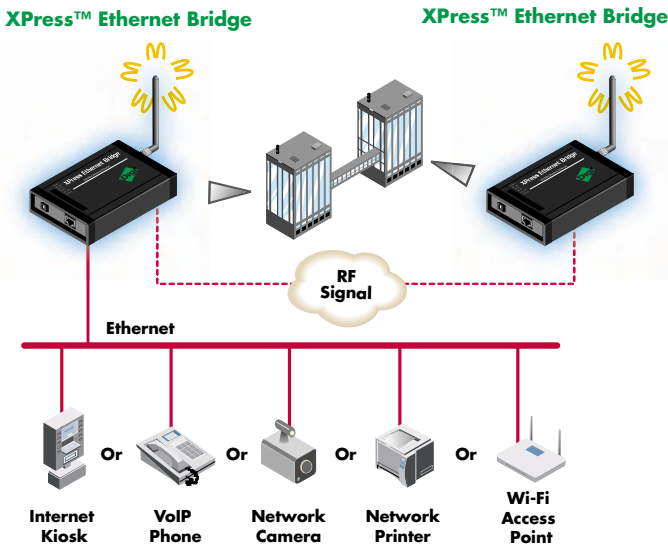


# XPress™ Ethernet Bridge :: Proprietary RF Modems

**Overview** :: The XPress Ethernet Bridge (XEB) replaces costly wiring with a solution that can enable remote Wi-Fi APs, Pan/Tilt/Zoom security cameras, VoIP phones, Internet kiosks and more. With a range of up to 15 miles (line-of-sight with a high gain antenna) and the ability to transmit through as many as 10 standard walls, the XEB uses the added range and capabilities of the 900 MHz band to communicate where Wi-Fi and other wireless data products fall short.

## + Features ::

- Does not interfere with Wi-Fi networks
- Highest QoS (Quality of Service) available
  - Synchronous point-to-point protocol enables extremely low data latency and jitter
- 128-bit encryption payload protection provides secure data delivery
- Simple plug-and-play
  - Pre-configured as matched pairs with no user programming required
- VLAN extensions supported
- Indoor and outdoor models available
- 5-year warranty



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## + Specifications cont. ::

### Performance

- Transmit power output: 125 mW (21 dBm)
- Indoor/Urban range: Up to 1000 ft (300 m) w/2.5 dB dipole antenna; up to 2000 ft (600m) with high gain antenna
- Outdoor/RF line-of-sight range: Up to 2 mi (3.2 km) w/2.5 dB dipole antenna; up to 15 mi (24 km) w/high-gain antenna
- RF data rate: 1.5 Mbps
- Interface data rate: 10 Base T
- Operating frequency: 900 MHz
- Receiver sensitivity: -97 dBm (@9600 bps)

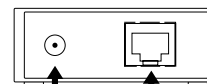
### Networking

- DSSS (Direct Sequence Spread Spectrum)
- Networking topology: Matched pair, point-to-point, point-to-multipoint
- Error handling: Retries
- Channel capacity: 12 direct sequence non-overlapping channels (DIP switch selectable)
- Addressing: Point-to-point communications only

### Other

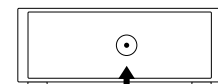
- RJ-45 connection
- RPTNC (female) antenna
- Frequency band: 902-928 MHz
- Operating temperature -40° C to 70° C

XPress Ethernet Bridge Indoor - Front



Power Connector Ethernet

XPress Ethernet Bridge Indoor - Back



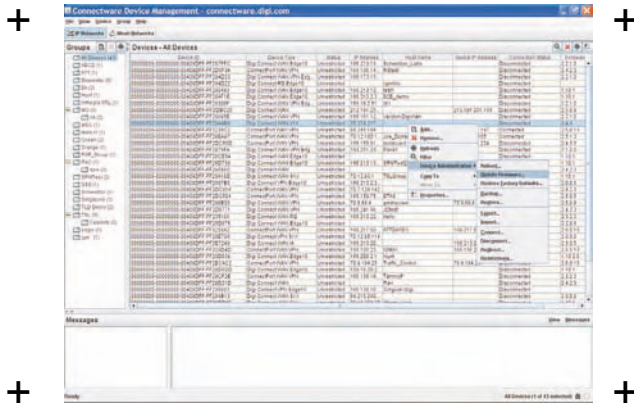
Antenna Connector

## Part Numbers ::

North America International

### Model

See page 199 for part numbers.



**Overview** :: Digi Connectware Manager is an enterprise remote device management software that can be run from a central server and can be managed via web interface from anywhere. Administrators have access to one or thousands of devices for management, monitoring, alerts and troubleshooting. Digi Connectware Manager includes built-in Dynamic DNS server for mapping an Internet host name to a dynamic/public IP address. It integrates seamlessly with the Digi Connect® WAN family, Digi Connect® Wi-SP and ConnectPort™ WAN VPN.

## + Features ::

- Provides easy management of large numbers of devices across remote (including wireless) networks
- Easy administration offers grouping of devices for automatic firmware upgrades and management
- Seamless connectivity offers hassle-free, secure connections regardless of IP architecture
- Integrates with the Digi Connect WAN family, ConnectPort WAN VPN and Digi Connect Wi-SP
- Up to 256-bit AES security provides encryption and authentication for management communications via Digi Connectware Manager
- Lowers administrative maintenance costs by reducing on-site visits to remote locations
- Generates alarms and alerting for remote diagnostics
- Enables remote reboot of device and default reset
- Provides secure access to all devices from web browser, anywhere
- Compatible with Windows 2000, Windows XP, Windows Server 2003 and Linux systems

## + Specifications ::

Digi Connectware Manager may be installed on a server at the customer site or at a Digi ASP partner. Administrators may securely log into Digi Connectware Manager from anywhere across an IP network (including the Internet) to access the application.

Digi Connectware Manager addresses the complexities of managing many remote devices over an IP connection by offering an easy, secure central point of access for all devices. Common tasks such as configuration changes or firmware upgrades can be made to one or one hundred devices using the grouping feature. Tasks may even be automated using a scheduling function to particular groups of devices.

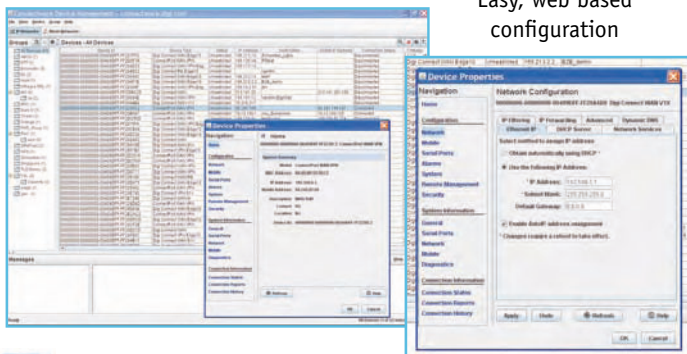
Users will also realize savings in time and money with features such as built-in monitoring of devices which provides real-time statistics and reports so that problems can be dealt with instantly, without deploying a technician on-site. Alerts can even be generated via email to individuals or groups.

Administrators can securely access Digi Connectware Manager from multiple locations using a standard web browser via an SSL connection. The software integrates seamlessly with the Digi Connect WAN family, ConnectPort WAN VPN and Digi Connect Wi-SP. for remote device management applications. These solutions are able to communicate with Digi Connectware Manager using a built-in micro-client, which uses a secure 256-bit AES connection.

Log in to a live server to see how a real Digi Connectware Manager works: [www.digi.com/digiconnectwaredemo](http://www.digi.com/digiconnectwaredemo).

Manage many devices at the same time with just a few clicks

Easy, web based configuration



## Part Numbers ::

North America International

### Model

Digi Connectware Manager License 25 - 25 device standard license pack. - Includes one year business hour support and software updates.	CW-LIC-25	CW-LIC-25
Digi Connectware Manager License 24X7 25 - 25 device standard license pack. - Includes one year 24X7 support and software updates.	CW-LICX-25	CW-LICX-25
Digi Connectware Manager Renewal Subscription - 25 device annual subscription with business hour support and software updates.	CW-SUB-25	CW-SUB-25
Digi Connectware Manager Renewal Subscription 24x7 25 - 25 device annual subscription w/24x7 support and software updates.	CW-SUBX-25	CW-SUBX-25

**Overview** :: Digi SureLink creates reliable persistent connections for devices on often unpredictable networks for optimized uptime and performance. Digi SureLink enables users of the Digi Connect® WAN family and ConnectPort™ WAN VPN to better control their connections for rapid on-demand communications. Digi cellular products use the unique Digi SureLink capabilities to provide an “always-on” connection that helps mitigate connection losses caused by RF signal loss. A programmable “inactivity timer” and a pro-active link integrity function are available.

In host initiated (mobile terminated) applications, if the host tries to communicate with a remote device and the mobile link is down, the connection attempt will fail. The Digi SureLink “keep-alive” function ensures the connection will be there when needed.

With mobile originated (remote device initiated) applications, an inactive mobile link may not appear to be as critical since a new link would be initiated when data is ready to be sent. However, the time needed to re-initiate the mobile PPP connection can take several seconds. A persistent connection means that data will be sent immediately.

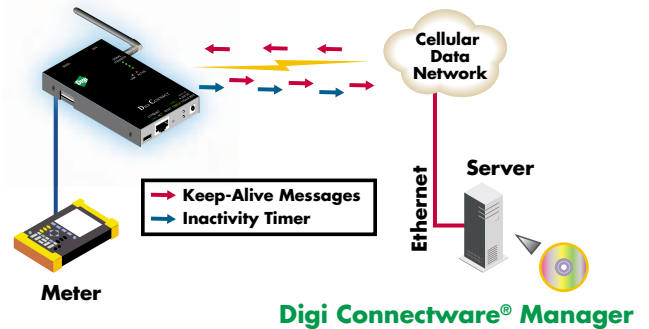
Digi Connectware® Manager adds enhanced keep-alive capabilities between the Digi device and the Digi Connectware Manager server. Digi Connectware Manager sends TCP keep-alive packets, at a configurable interval, to the remote Digi device in order to maintain a persistent connection. Digi cellular devices can also be configured to launch keep-alive packets from the remote device side to the network in order to ensure the connection stays open and available for instant communications.



## + Features ::

- Always-on connections ensure rapid on-demand communications, maximize user uptime
- Device initiated inactivity timer ensures PPP connection is always available
- Very small device initiated or Digi Connectware Manager initiated keep-alive messages allow connection to stay up

### Digi Cellular Router/Gateway



# Cameras and Sensors

## Environmental Monitoring

The Watchport Series is the first complete line of Plug and Play USB devices for environmental monitoring. Video components for surveillance, including Watchport USB cameras, Watchport motion detection software and Watchport/FastAccess facial recognition software, may be paired with Watchport USB sensors to measure distance/proximity, humidity, temperature, water, acceleration or tilt to create a fully customized monitoring system.

Watchport Manager software, included with each sensor, 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 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.

### What do you need to do?

- + Implement a cost-effective surveillance system with motion detection capabilities..... [Watchport USB Camera, Watchport Sentry](#)
- + Monitor environmental conditions in a kiosk, server room or data center..... [Watchport Sensors](#)
- + Receive pager, email and onscreen alarms when undesirable conditions are detected.... [Watchport Manager](#)
- + Utilize facial recognition to ensure continuous computer security and access control without passwords..... [Watchport/FastAccess](#)

## + Cameras and Sensors – Environmental Monitoring

### Watchport Cameras

- Watchport®/V2, Watchport®/V3..... pg. 135

### Watchport Sensors

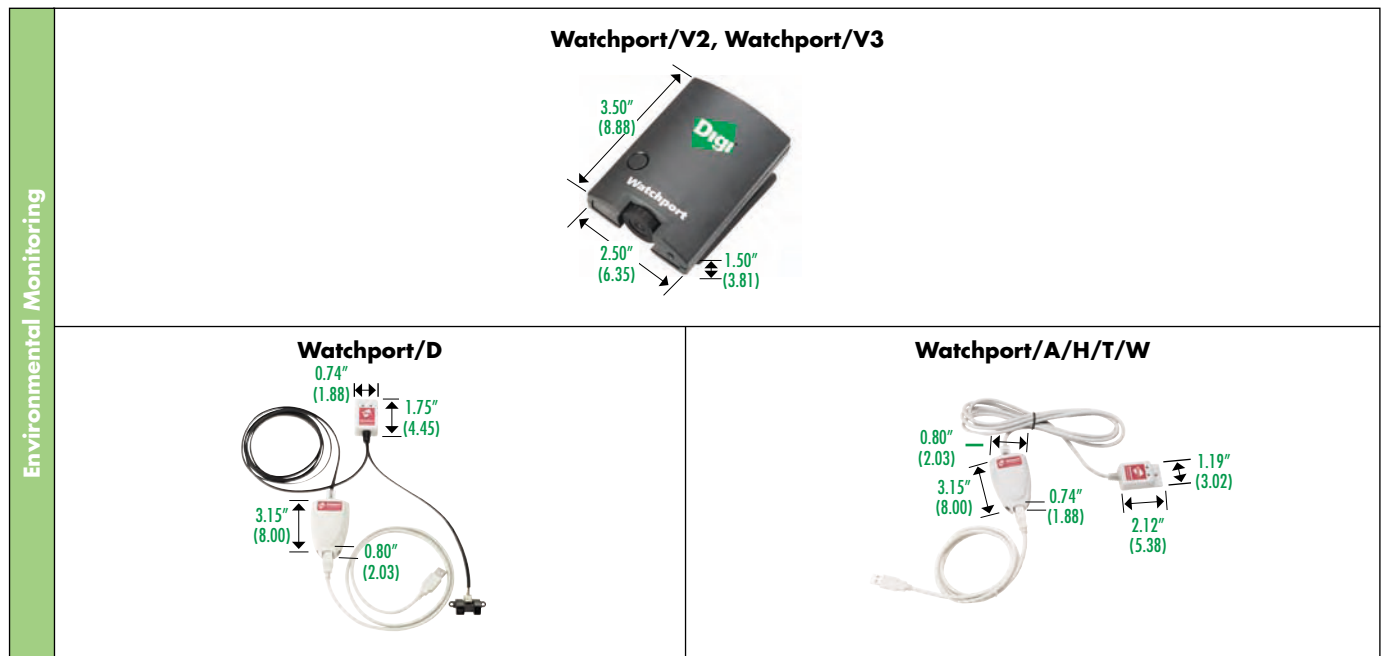
- Watchport®/A..... pg. 136
- Watchport®/D..... pg. 136
- Watchport®/H..... pg. 136
- Watchport®/T..... pg. 136
- Watchport®/W..... pg. 136

### Management Tools/Special Features

- Watchport®/FastAccess..... pg. 137
- Watchport® Motion Detection Software..... pg. 138
- Watchport® Manager ..... pg. 139



		Cameras	Watchport/V2 Watchport/V3	Sensors	Watchport/T	Watchport/H
Cameras and Sensors Features Chart	Ports	<ul style="list-style-type: none"> <li>• USB Type B</li> </ul>		<ul style="list-style-type: none"> <li>• USB Type B, RJ-45 Ethernet</li> </ul>		<ul style="list-style-type: none"> <li>• USB Type B, RJ-45 Ethernet</li> </ul>
	Comments	<ul style="list-style-type: none"> <li>• Non-interlaced USB camera (V3 model)</li> <li>• Motion detection software available</li> <li>• Facial recognition software available</li> <li>• Optional lens pack</li> </ul>		<ul style="list-style-type: none"> <li>• Temperature sensor</li> <li>• Watchport Manager software included</li> </ul>		<ul style="list-style-type: none"> <li>• Humidity and temperature sensor</li> <li>• Watchport Manager software included</li> </ul>
		Sensors	Watchport/W	Watchport/D	Watchport/A	
	Ports	<ul style="list-style-type: none"> <li>• USB Type B, RJ-45 Ethernet</li> </ul>		<ul style="list-style-type: none"> <li>• USB Type B, RJ-45 Ethernet</li> </ul>		<ul style="list-style-type: none"> <li>• USB Type B, RJ-45 Ethernet</li> </ul>
	Comments	<ul style="list-style-type: none"> <li>• Water detector</li> <li>• Watchport Manager software included</li> </ul>		<ul style="list-style-type: none"> <li>• Distance/Proximity sensor</li> <li>• Watchport Manager software included</li> </ul>		<ul style="list-style-type: none"> <li>• Accelerometer/Tilt sensor</li> <li>• Watchport Manager software included</li> </ul>



Measurements:    inch  
                          (cm)

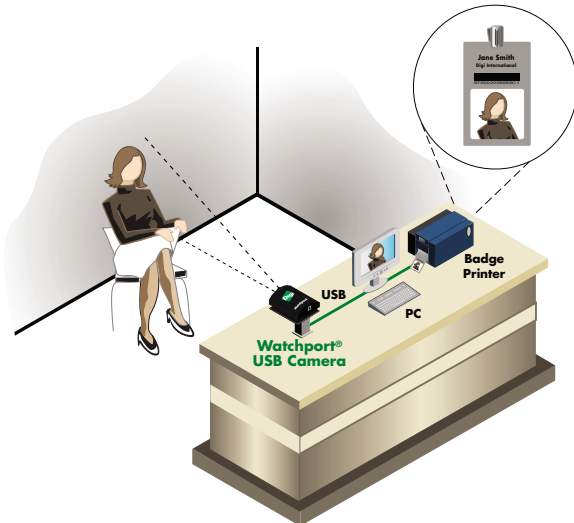
	Windows Server 2003	Windows XP, XP Embedded	Windows NT, Windows NT Embedded	Windows 2000/ME	Windows 98/95	Windows CE	Linux	Sun Solaris
Watchport USB Cameras	•	•	•	•				
Watchport Sensors	•	•	•	•	•	•		

# Watchport® Cameras :: USB Cameras and Software

**Overview** :: Watchport/V2 and Watchport/V3 (non-interlaced model) are high performance USB cameras designed for mission-critical enterprise applications such as kiosks, ATMs, point-of-sale, building automation/security and mobile computing. The first USB webcams with Windows NT drivers, they offer exceptional low light sensitivity (<1 lux) and enhanced resolution to deliver optimum picture quality. An optional lens kit, motion detection software and facial recognition software are available for complete customization. Watchport USB cameras are USB powered and offer Plug and Play installation for easy integration into any application.

## + Features ::

- Ideal for photo ID badging, kiosks, ATMs, access control and general surveillance
- Exceptional low light sensitivity
- Non-interlaced model for even higher quality pictures
- Optional lens pack available
- Adjustable resolutions
- Compatible with DirectShow®, TWAIN and AVI
- Easy Plug and Play installation
- Only USB cameras of their kind with Windows NT drivers
- Watchport/FastAccess facial recognition software and motion detection software available (see page 137)
- 5-year warranty



+

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+

## + Specifications ::

- 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 rate of 30 fps at all resolutions
- Removable 4.9mm lens; F:2.0 adjustable
- Optional lens pack available
  - 3 mm wide angle
  - 8 mm close-up
  - 12 mm telephoto
- 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), RGB555
- 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
- Compatible with Windows XP/XP Embedded, Windows NT 4.0/NT Embedded, Windows 2000/Me, Windows Server 2003

## Part Numbers ::

North America    International

Model	North America	International
Watchport/V2 USB Camera	301-9010-01	N/A
Watchport/V3 USB Camera - Non-interlaced model	301-9010-02	301-9010-02
Watchport/FastAccess with Camera	301-9050-01	301-9050-01
Watchport/V USB Camera Lens Pack - 3 mm wide angle, 8 mm close-up, 12 mm telephoto	301-9015-01	301-9015-01
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 Extra License - For additional Console connections	301-9029-01	301-9029-01
Watchport/V Wall Mount	301-9018-01	301-9018-01
Watchport/V Clamp Mount	301-9019-01	301-9019-01
Watchport USB Camera VESA Mount	301-9025-01	301-9025-01

All cables and accessories: pg. 161.

# Watchport® Sensors :: USB Sensors for Environment Monitoring



**Overview ::** The Watchport Series includes the first complete line of Plug and Play USB sensors for environmental monitoring. Choose from sensors for proximity, distance, acceleration/tilt, humidity/temperature, water and temperature. Watchport Manager application software provides centralized device status and historical data logging, and allows the easy integration of multiple Watchport devices without additional software development. Creating a made-to-order monitoring system with Watchport sensors can preempt damage to equipment and facilities and also reduce costly system downtime and maintenance.

## + Features ::

- Ideal for remote monitoring in POS (kiosks, ATMs), medical, data center and other security applications
- USB 1.0 and 1.1 compatible; backwards compatible for 2.0
- Easy to install and configure
- Includes USB base, sensing device and Watchport Manager software
- Extend distance between sensor and host with CAT5 cable
- Remotely monitor and configure over an IP network with AnywhereUSB®
- ASCII command interface available for application software development
- Compatible with Windows operating systems
- 5-year warranty

## + Specifications ::

### Watchport/H Humidity/Temperature Sensor

- Collects both relative humidity (RH) and temperature data
- Temperature compensated RH readings
- Configurable Watchport Manager alarm thresholds
- ASCII command interface
- RH accuracy: +/- 5% at 0-90% non-condensing; +/- 8% over 90%
- Maximum CAT5 UTP cable length: 500 ft (152.46 m)

### Watchport/T Temperature Sensor

- Configurable Watchport Manager alarm thresholds
- ASCII command interface
- 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)

## + Specifications cont. ::

### Watchport/D Distance and Proximity Sensor

- Photo-electric sensor with hardware controlled sensitivity
- Reports proximity event or object distance
- 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
- Response delay: ≤5.0 ms (typical)
- Power consumption: 70 mA (max)
- 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/Tilt Sensor

- Dual axis accelerometer
- Measures dynamic acceleration, such as vibration, or static acceleration (gravity)
- Measures tilt to within 0.1°
- Acceleration from -2g to 2g

## Part Numbers ::

North America    International

Model	North America	International
Watchport/H - Humidity/Temperature sensor	301-1141-01	301-1141-01
Watchport/D - Distance/Proximity sensor	301-1146-01	301-1146-01
Watchport/T - Temperature sensor	301-1144-01	301-1144-01
Watchport/W - Water detector	301-1145-01	301-1145-01
Watchport/A - Accelerometer	301-1147-01	301-1147-01



**Overview** :: Watchport/FastAccess software is an inexpensive integrated solution for continuous computer security and access control without passwords.

Available with Watchport USB cameras, Watchport/FastAccess software, uses facial recognition to dramatically reduce or eliminate the need for login passwords in computer environments where data security is critical and time is of the essence. With its patent-pending advanced facial recognition technology, computer access is quickly and seamlessly granted to authorized users while transparently securing the data and device as soon as the user steps out of view.

The industry leading Watchport USB camera provides high resolution images, even in the low lighting conditions, guaranteeing reliable facial recognition and security in nearly any deployment.

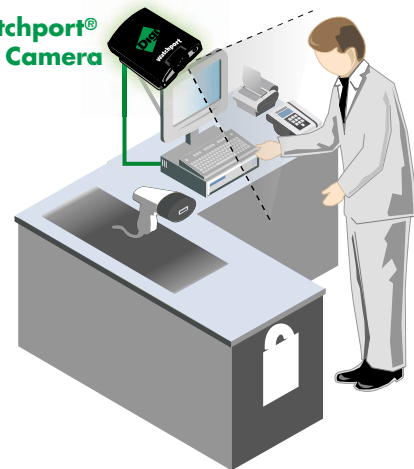
The application possibilities are almost endless. Control access to cash registers in retail points of sale; comply with HIPAA regulations for patient medical data; or protect confidential employee information by automatically ending a session at a human resources kiosk when the user is no longer detected. For added flexibility, multiple Watchport cameras may be configured and remotely monitored on an IP network with AnywhereUSB®.

## + Features ::

- Instant facial recognition
- Automatic login without typing
- Automatic logoff when user steps away
- Seamless account switch for new users
- Eliminates password theft
- Centrally managed
- Easily deployed

## Watchport/FastAccess

Watchport®  
USB Camera



## Part Numbers ::

North America    International

### Model

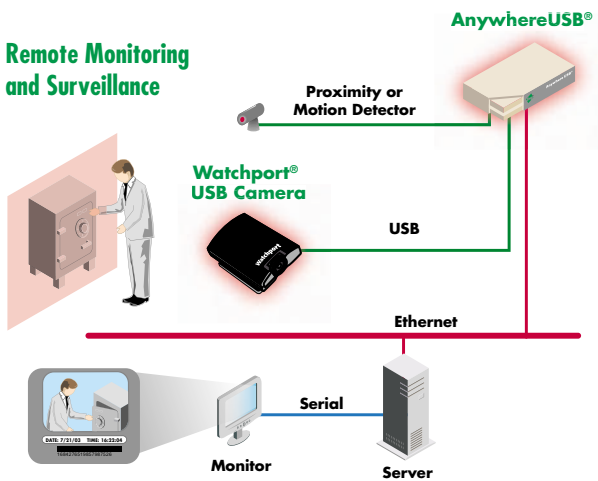
Watchport/FastAccess with Camera

301-9050-01

301-9050-01

# Motion Detection Software :: Management Tools/Special Features

## Remote Monitoring and Surveillance



**Overview ::** 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. The Watchport USB camera 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.

## + Features ::

- Sensitivity controls and user-defined masks eliminate spurious motion detection and compensate 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



Watchport Sentry detects motion, zooms in and tracks movement with crosshairs in the video window.

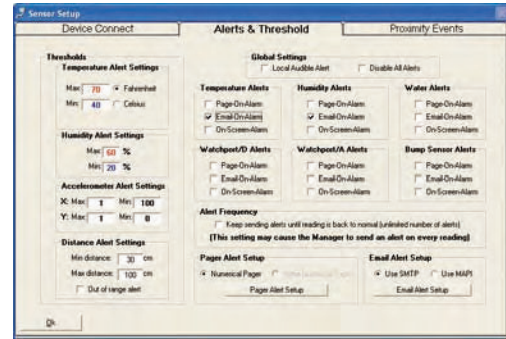
## Part Numbers ::

North America International

### Model

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 Extra License - For additional Console connections	301-9029-01	301-9029-01

**Overview** :: Creating a 24/7 made-to-order remote monitoring system is easy with Watchport Manager application software, which is included with each Watchport sensor. 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.

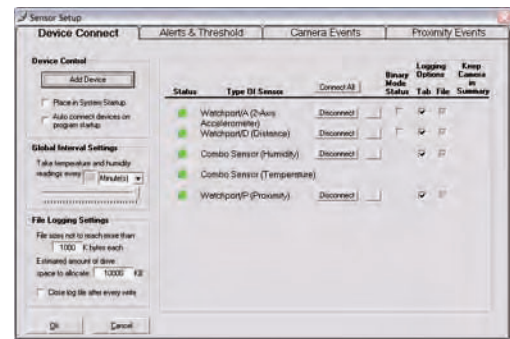


**Alerts and thresholds**

## + Features ::



- Centralized device status
- Historical data logging
- User-defined alarm thresholds
- Cell phone, 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
- Free with all Watchport sensors



**Summary**



**Sensor setup**



# Serial Cards

## PCI/PCI-X/ISA Solutions

Our multiport serial card product line, including the original DigiBoard®, is the number one selling serial card product line in the world. Digi's solutions offer the highest level of operating system support, serial port capacity, I/O performance, transmission distance, environmental tolerance and upgradeability for all of your application needs.

As PCs and servers continue to become smaller, customers who utilize rack mount servers, for example, need smaller card solutions with increased port counts. This is causing demand to shift from ISA and high profile PCI to low profile PCI. Since we are committed to maintaining our position as the clear world leader in serial connectivity, we responded to this trend by extending our market-leading product line to include low profile bracket options.

Choose from High Performance, Expandable, Enhanced, Standard and Multi-Modem models to find the exact feature set your application requires.

### High-Performance

Good at handling large batches of data (streaming video, printing) using microprocessors to off-load burden from PC.

### Expandable

Start with eight ports and grow to as many as 128 per PC slot.

### Enhanced and Standard

No microprocessor, so ideal for handling small bursts of data; very low latency.

### Multi-Modem

Integrated modem adapters for high speed analog connections.

You might wonder whether our serial card solutions are supported in PCI-X systems. The answer is "Absolutely!" PCI-X is backwards-compatible with PCI cards and operates at 3.3 volts. All of our Universal PCI (3.3V and 5.5V) cards work in both the 32-bit and 64-bit slots of PCI-X systems.

## What do you need to do?

- + Add 2 to 16 high-performance, intelligent, programmable serial ports..... **AccelePort Xp**
- + Add 4 to 8 RS-422 serial ports with broad OS compatibility ..... **AccelePort Xr**
- + Utilize a cost-efficient serial connectivity solution that is expandable to 64 ports per slot with rack options ..... **AccelePort Xem**
- + Gain up to 128 highly-intelligent ports per slot with remote connectivity options..... **AccelePort C/X**
- + Install a serial card with low latency and flexible connector and power options in a small form factor..... **Digi Neo**
- + Utilize a simple-to-install board with a 650 UART base..... **ClassicBoard**
- + Manage multiple fax machines in a small business to a single server ..... **AccelePort RAS**

## + Serial Cards – PCI/PCI-X/ISA Solutions

### High-Performance

- AccelePort® Xp .....pg. 144-145
- AccelePort Xr® 920 .....pg. 146-147

### Expandable

- AccelePort® C/X .....pg. 148-149
- AccelePort® Xem .....pg. 150-151

### Enhanced

- Digi Neo® .....pg. 152-153

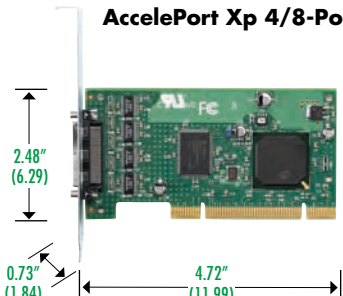
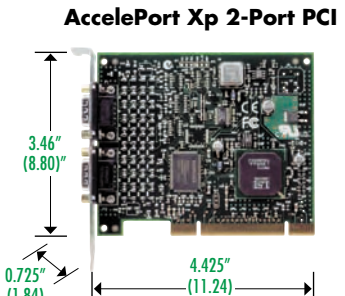
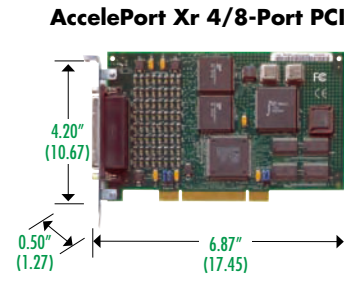
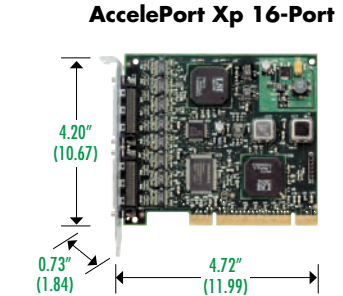
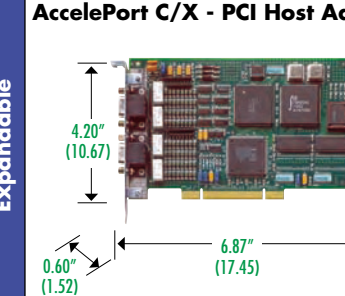
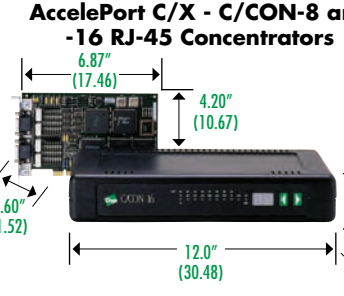
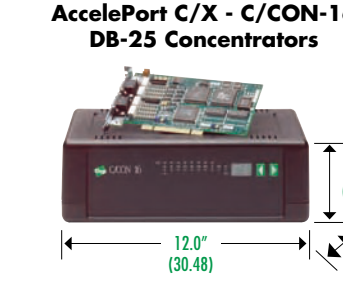
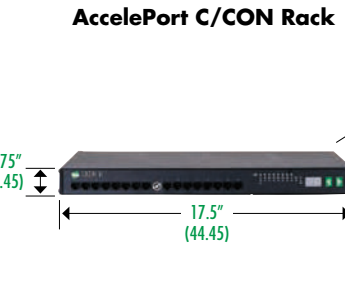
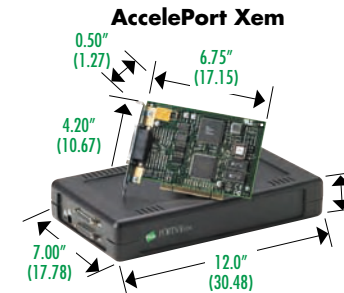
### Standard

- ClassicBoard™ .....pg. 154-155

### Multi-Modem

- AccelePort RAS® .....pg. 156-157

	High-Performance	AccelePort Xp	AccelePort Xr 232	AccelePort Xr 422	Expandable	AccelePort C/X	AccelePort Xem 232	AccelePort Xem 422	Enhanced	Digi Neo	Standard	ClassicBoard PCI	ClassicBoard ISA	Multi-Modem	AccelePort RAS
Multiport Serial Card Features Chart	Bus Type	PCI/PCI-X	PCI/PCI-X	PCI/PCI-X	PCI/PCI-X	PCI/PCI-X	PCI/PCI-X	PCI/PCI-X	PCI/PCI-X	PCI/PCI-X	PCI (5V)	ISA	32-bit PCI (3.3V & 5V)		
	Serial or Modem* Ports	2/4/8/16	2/4/8 4/8	8 to 128	8 to 64	1/2/4/8	4/8	4/8	*4/8 V.90 56K Flex						
	Serial Type	RS-232	RS-232 RS-422	RS-232	RS-232 RS-422	RS-232	RS-232/422	RS-232							
	Connector	RJ-45, DB-9, DB-25	RJ-45, DB-9, DB-25 DB-9, DB-25	RJ-45, DB-25	RJ-45, DB-25 DB-25	RJ-45, DB-9, DB-25	RJ-45, DB-25	RJ-45, DB-9, DB-25	RJ-45, DB-9, DB-25	RJ-11					
	Baud	921.6 Kbps	Up to 921.6 Kbps 230 Kbps	115.2 Kbps	115.2 Kbps	115.2 Kbps	Exceeding 460.8 Kbps	Up to 460.8 Kbps 115.2 Kbps							
	Surge/ESD	15 kV	20 kV	15 kV	15 kV	15 kV	15 kV	15 kV							
	Low Profile Models	4/8				8 to 64	1/2/4/8								

High-Performance	<b>AccelePort Xp 4/8-Port</b>  2.48" (6.29) 0.73" (1.84) 4.72" (11.99)	<b>AccelePort Xp 2-Port PCI</b>  3.46" (8.80) 0.725" (1.84) 4.425" (11.24)	<b>AccelePort Xr 4/8-Port PCI</b>  4.20" (10.67) 0.50" (1.27) 6.87" (17.45)	
	<b>AccelePort Xp 16-Port</b>  4.20" (10.67) 0.73" (1.84) 4.72" (11.99)	<b>AccelePort C/X - PCI Host Adapter</b>  4.20" (10.67) 0.60" (1.52) 6.87" (17.45)	<b>AccelePort C/X - C/CON-8 and -16 RJ-45 Concentrators</b>  6.87" (17.46) 4.20" (10.67) 0.60" (1.52) 2.25" (5.72) 12.0" (30.48) 7.00" (17.78)	
Expandable	<b>AccelePort C/X - C/CON-16 DB-25 Concentrators</b>  4.20" (10.67) 12.0" (30.48) 7.00" (17.78)	<b>AccelePort C/CON Rack</b>  1.75" (4.45) 17.5" (44.45) 11.00" (27.94)	<b>AccelePort Xem</b>  0.50" (1.27) 6.75" (17.15) 4.20" (10.67) 2.25" (5.72) 7.00" (17.78) 12.0" (30.48)	

Measurements: inch (cm)

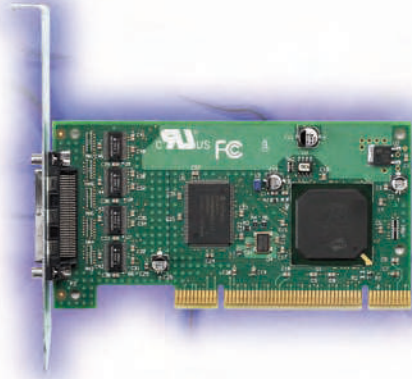
Operating System Chart	Windows 2000/XP/ Server 2003	Windows NT 4.0	Windows 95/98/ME	AIX	HP-UX	SCO OpenServer	SCO UnixWare	Solaris Intel	Solaris SPARC	Linux
	AccelePort Xp	•	•	•	•	•	•	•	•	•
AccelePort Xr	•	•	•	•	•	•	•	•	•	•
AccelePort C/X	•	•	•	•	•	•	•	•	•	•
AccelePort Xem	•	•	•	•	•	•	•	•	•	•
Digi Neo	•	•	•		•					•
ClassicBoard	•	•	•		•					•
AccelePort RAS	•	•		•	•	•	•	•	•	•

Expandable	<b>AccelePort Xem Rack</b> 	<b>AccelePort Xem (Low Profile)</b> 	Enhanced	<b>AccelePort Xr 422 4/8-Port PCI</b> 	
	<b>Digi Neo - 2-Port DB-9 (High Profile)</b> 	<b>Digi Neo - 2-Port DB-9 (Low Profile)</b> 		<b>Digi Neo - 2-Port RJ-45 (Low Profile)</b> 	
Enhanced	<b>Digi Neo - 4-Port RJ-45</b> 	Standard	<b>ClassicBoard - 4/8-Port PCI</b> 	Multi-Modem Adapters	<b>AccelePort RAS 4/8</b> 

Measurements: inch  
(cm)

# AccelePort® Xp :: High-Performance Asynchronous Serial Cards

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**Overview ::** AccelePort Xp Universal PCI (3.3V & 5V) cards are powerful, highly integrated 80 MHz RISC processor-based products, delivering the highest performing design on the market today. They are available in two- to 16-port versions with a wide array of connector options, including onboard connectors, fan-out cables and external I/O boxes. AccelePort Xp is designed to enhance multiuser implementations such as retail/POS, industrial control processing, data collection and office automation.

+

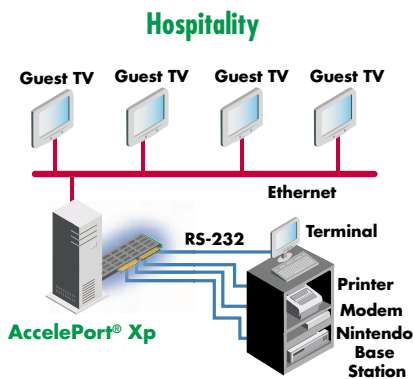
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## + Features ::

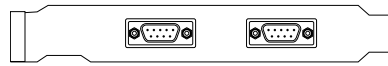
- 2 to 16 RS-232 serial connections for port configuration flexibility
- Small form factor meets low profile PCI specifications
- External options connect to the adapter via a small SCSI HD-68 connector, reducing cable clutter and increasing connection reliability
- Surge protection on all signals for superior reliability
- Bus mastering design reduces CPU utilization
- Simultaneously supports data speeds of 921.6 Kbps, bi-directionally on all ports
- Ideal for retail/POS, industrial control processing, data collection and office automation
- PortAssist® Manager web-based management and reporting software enables basic diagnostics, enhanced network administration and monitoring on most supported operating systems
- 5-year warranty

## + Specifications ::

- 2, 4, 8 or 16 RS-232 serial ports
- Low profile options for 4- and 8-port models
- DB-9, DB-25 and RJ-45 connectors
- PCI Universal Card (3.3V & 5V)
- 32- and 64-bit PCI slot
- PCI 2.3 compliant
- PCI-X compatible
- 80 MHz RISC processor
- 921.6 Kbps throughput
- Full modem control
- Hardware/software handshaking
- 15 kV surge protection on all signals

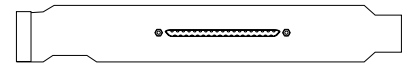


AccelePort Xp 2 DB-9



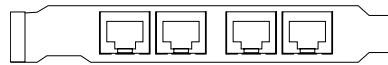
↑  
DB-9M  
Serial

AccelePort Xp 4/8 HD-68



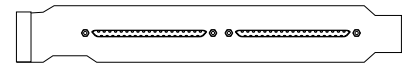
↑  
HD-68  
Pins

AccelePort Xp 4 RJ-45



↑  
RJ-45  
Serial

AccelePort Xp 16 HD-68



↑  
HD-68  
Pins

The Makers of the Original  
**DigiBoard**





## Part Numbers ::

North America International

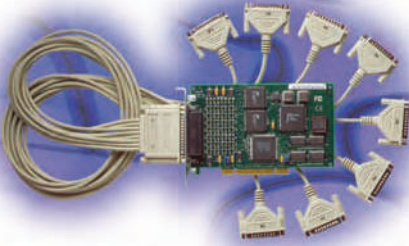
Model		
AccelePort Xp Universal PCI (3.3V & 5V) 2-Port RS-232 DB-9M On-Board	77000659	77000659
AccelePort Xp Universal PCI (3.3V & 5V) 4-Port RS-232	77000706	77000706
AccelePort Xp Universal PCI (3.3V & 5V) 4-Port RS-232 w/DB-25 Cable	70001549	70001549
AccelePort Xp Universal PCI (3.3V & 5V) 4-Port Low Profile RS-232*	77000845	77000845
AccelePort Xp Universal PCI (3.3V & 5V) 4-Port RS-232 RJ-45 On-Board	77000838	77000838
AccelePort Xp Universal PCI (3.3V & 5V) 8-Port RS-232	77000707	77000707
AccelePort Xp Universal PCI (3.3V & 5V) 8-Port RS-232 w/DB-25 Cable	70001548	70001548
AccelePort Xp Universal PCI (3.3V & 5V) 8-Port Low Profile RS-232*	77000846	77000846
AccelePort Xp Universal PCI (3.3V & 5V) 16-Port RS-232	77000708	77000708
AccelePort Xp Universal PCI (3.3V & 5V) 16-Port RS-232 w/RJ-45 Rack	70001557	70001557
AccelePort Xp Universal PCI (3.3V & 5V) 16-Port RS-232 w/DB-25 Rack	70001550	70001550
<b>Accessories</b>		
4-Port DB-25M Straight Fan-Out Cable	76000522	76000522
4-Port DB-9M Straight Fan-Out Cable	76000528	76000528
4-Port DB-25F Straight Fan-Out Cable	76000532	76000532
4-Port DB-9F Straight Fan-Out Cable	76000530	76000530
4-Port DB-25M Straight Connector Box w/Cable	76000524	76000524
4-Port DB-9M Straight Connector Box w/Cable	76000560	76000560
4-Port RJ-45 Straight Connector Box w/Cable	76000526	76000526
8-Port DB-25M Straight Fan-Out Cable	76000523	76000523
8-Port DB-9M Straight Fan-Out Cable	76000529	76000529
8-Port DB-25F Straight Fan-Out Cable	76000533	76000533
8-Port DB-9F Straight Fan-Out Cable	76000531	76000531
8-Port DB-25M Straight Connector Box w/Cable	76000525	76000525
8-Port DB-9M Straight Connector Box w/Cable	76000561	76000561
8-Port RJ-45 Straight Connector Box w/Cable	76000527	76000527
16-Port 2U 19" Rack w/DB-25M Connectors (use w/two 8-port AccelePort Xp cards)	76000587	76000587
16-Port 1U 19" Rack w/RJ-45 Connectors (use w/two 8-port AccelePort Xp cards)	76000588	76000588
HD-68M to DB-78F Converter (use w/legacy accessories)	76000534	76000534

\* This package contains a full-height PCI bracket that can be replaced using a small screwdriver.

**All cables and accessories: pg. 158, 162.**

# AccelePort® Xr 920 :: High-Performance Asynchronous Serial Cards

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**Overview ::** The AccelePort Xr 920 family of high performance serial cards includes two-, four- and eight-port models, all with wide application flexibility and scalability. Available in PCI Universal Card (3.3V & 5V), RS-232 and RS-422 versions, they provide a 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 every pin. AccelePort Xr 920 is ideal for multiuser and Remote Access Server (RAS) applications.

+

## + Features ::

- Flexible port and serial interface options
- RISC-based processor enhances overall system throughput by 82 CPU communication bottlenecks
- PCI and PCI-X compatible for use in older and newer machines
- Universal PCI bus slot supports 3.3V and 5V
- Full modem control and hardware and software flow control
- Heavy-duty surge protection on all pins for superior reliability
- Ideal for retail/POS, industrial control processing, data collection and office automation
- 5-year warranty

+

## + Specifications ::

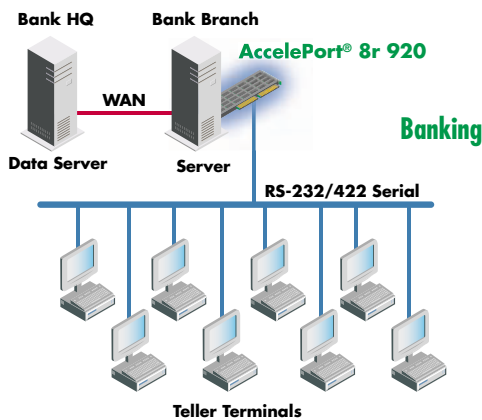
- 2, 4 or 8 RS-232 serial port models
- 4 or 8 RS-422 serial port models
- DB-9, DB-25 and RJ-45 connector options
- 20 kV surge protection on all pins
- PCI Universal Card (3.3V & 5V)
- 32- and 64-bit PCI slot
- PCI 2.3 compliant
- PCI-X compatible
- Slave design
- Hardware/software handshaking

### AccelePort Xr 920 RS-232

- Up to 921.6 Kbps throughput
- 16C654 Quad UARTs
- Software configurable bus port
- Full modem control

### AccelePort Xr RS-422

- Up to 230 Kbps throughput
- 16C554 Quad UARTS



The Makers of the Original  
**DigiBoard**

PCI  
3.3V-5V  
Universal  
Card

# AccelePort® Xr 920 :: High-Performance Asynchronous Serial Cards

## Part Numbers ::

North America International

### Model

#### AccelePort Xr 422

AccelePort Xr Universal PCI (3.3V & 5V) 4-Port RS-422 w/DB-25M Cable	70001193	70001193
AccelePort Xr Universal PCI (3.3V & 5V) 4-Port RS-422 w/DB-9F Cable	70001194	70001194
AccelePort Xr Universal PCI (3.3V & 5V) 8-Port RS-422 w/DB-25M Cable	70001199	70001199
AccelePort Xr Universal PCI (3.3V & 5V) 8-Port RS-422 w/DB-9F Cable	70001200	70001200
AccelePort Xr Universal PCI (3.3V & 5V) 4-Port RS-422 (see cable options below)	77000453	77000453
AccelePort Xr Universal PCI (3.3V & 5V) 8-Port RS-422 (see cable options below)	77000454	77000454

#### AccelePort Xr 920

AccelePort Xr 920 Universal PCI (3.3V & 5V) 2-Port RS-232 DB-9M On-Board	77000573	77000573
AccelePort Xr 920 Universal PCI (3.3V & 5V) 4-Port RS-232 w/DB-25M Cable	70001361	70001361
AccelePort Xr 920 Universal PCI (3.3V & 5V) 4-Port RS-232 (w/o cables)	77000560	77000560
AccelePort Xr 920 Universal PCI (3.3V & 5V) 8-Port RS-232 w/DB-25M Cable	70001362	70001362
AccelePort Xr 920 Universal PCI (3.3V & 5V) 8-Port RS-232 (w/o cables)	77000561	77000561

#### Accessories for AccelePort Xr

4-Port DB-9M Straight Fan-Out Cable	76000003	76000003
4-Port DB-25M Straight Fan-Out Cable	76000008	76000008
4-Port DB-25M Straight Connector Box	76000030	76000030
4-Port RJ-45 Connector Box	76000038	76000038
4-Port DB-25F Straight Fan-Out Cable	76000006	76000006
8-Port DB-9M Straight Fan-Out Cable	76002042	76002042
8-Port DB-25M Straight Fan-Out Cable	76000021	76000021
8-Port DB-25M Straight Connector Box	76000031	76000031
8-Port RJ-45 Connector Box	76000033	76000033
8-Port DB-25F Straight Fan-Out Cable	76000019	76000019

All cables and accessories: pg. 158, 163.

# AccelePort® C/X :: Expandable Asynchronous Serial Cards

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**Overview ::** If you think configuring a large-scale multiport system is a complex, time-consuming process, think again. The AccelePort C/X asynchronous concentrator is fast, simple and surprisingly flexible. It provides a sophisticated blend of technologies, including an intelligent host adapter plus a desktop or rack mounted AccelePort C/CON Concentrator with eight or 16 high-speed, surge-protected RS-232 serial ports. System expansion is painless – just add more concentrators when you need more ports.

+

## + Features ::

- 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)
- 5-year warranty

+

## + Specifications ::

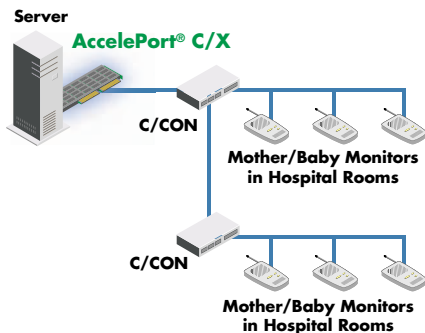
### AccelePort C/X Host Adapters

- PCI Universal Card (3.3V/5V)
- 32- and 64-bit PCI slot
- PCI 2.3 compliant
- PCI-X compatible
- 85C30 serial communications controller, fully supported by DMA, driving two full-duplex, surge-protected RS-422 synchronous channels
- IDT 3041 RISC processor
- Hitachi 64570 serial communications controller
- Supports up to 3.7 Mbps bi-directional transmission speeds
- 1,000 feet over CAT5, 1.2 miles with fiber

### AccelePort C/CON Concentrators

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

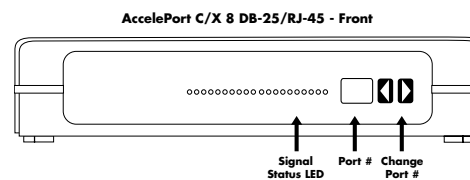
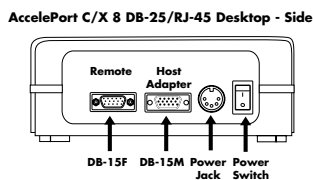
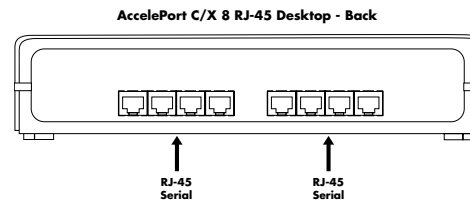
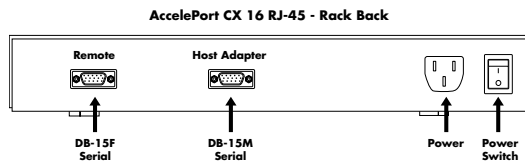
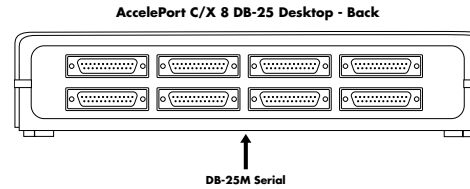
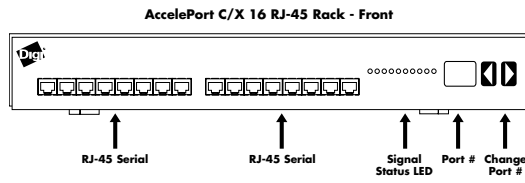
## Nurses Station



The Makers of the Original  
**DigiBoard**

PCI  
3.3V-5V  
Universal  
Card

# AccelePort® C/X :: Expandable Asynchronous Serial Cards



## Part Numbers ::

North America International

### Model

AccelePort C/X Universal PCI (3.3V & 5V) 8-Port RS-232 DB-25 Concentrator	70001229	70001230
AccelePort C/X Universal PCI (3.3V & 5V) 8-Port RS-232 RJ-45 Concentrator	70001171	70001172
AccelePort C/X Universal PCI (3.3V & 5V) 16-Port RS-232 DB-25 Concentrator	70001231	70001232
AccelePort C/X Universal PCI (3.3V & 5V) 16-Port RS-232 RJ-45 Concentrator	70001167	70001168
AccelePort C/X Universal PCI (3.3V & 5V) 16-Port RS-232 RJ-45 1U Rack	70001175	70001176

### Additional Concentrators

AccelePort C/CON 8-Port RS-232 DB-25	76000218	76000219
AccelePort C/CON 8-Port RS-232 RJ-45	76000216	76000217
AccelePort C/CON 16-Port RS-232 DB-25	76000069	76000070
AccelePort C/CON 16-Port RS-232 RJ-45	76000067	76000068
AccelePort C/CON 16-Port RS-232 RJ-45 1U Rack	76000147	76000158

### Host Adapter

AccelePort C/X Universal PCI (3.3V & 5V) RS-232	77000448	77000448
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### Accessories

AccelePort C/X Fiber Link Adapter	76000071	76000107
AccelePort C/CON Power Supply	76000351	76000694
19" Rack Chassis - 2U for AccelePort C/CON and Digi PORTS/Xem	76000611	76000611
AccelePort C/CON RS/6000 Compatibility Upgrade Kit (for 16-port C/CON only)	70001385	70001385
AccelePort C/X Host Adapter to RS-232 Sync Modem Cable	76000211	76000211
AccelePort C/X Host RS-232 Sync Modem to Remote Concentrator	76000212	76000212

All cables and accessories: pg. 158, 162.

# AccelePort® Xem :: Expandable Asynchronous Serial Cards

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

+

## + Features ::

- Expandable up to 64 ports from a single host slot
- 8- and 16-port concentrator boxes provide incremental expansion
- Universal PCI bus slot supports 3.3V & 5V
- Low profile PCI option
- Delivers data speeds up to 115.2 Kbps
- Ideal for connecting modems, terminals, printers, instruments and other serial devices
- 1U 19-inch rack mount 16-port option
- 5-year warranty

+

## + Specifications ::

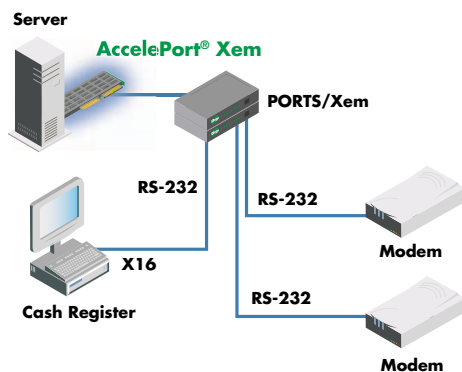
### AccelePort Xem Host Card

- PCI Universal Card (3.3V/5V)
- PCI 2.3/PCI-X compatible
- 32- and 64-bit PCI slot
- Low profile PCI option
- Up to 115.2 Kbps throughput per port
- 1 host card supports up to four Digi PORTS modules, up to 64 ports
- On-board IDT 3081 RISC processor with patented Front End Processor/Operating System (FEP/OS)
- Limit of 10 ft from server to the last PORTS module.

### Digi PORTS Modules

- Interchangeable between PCI platforms and PortServer® II
- 8 or 16 RS-232 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
- Full modem control and hardware handshaking (CTS, RTS, DSR, DTR and DCD) on all channels
- Limit of 10 ft from server to the last PORTS module
- Auxiliary power supply package required on modules 3 and 4 when using more than 2 PORTS modules

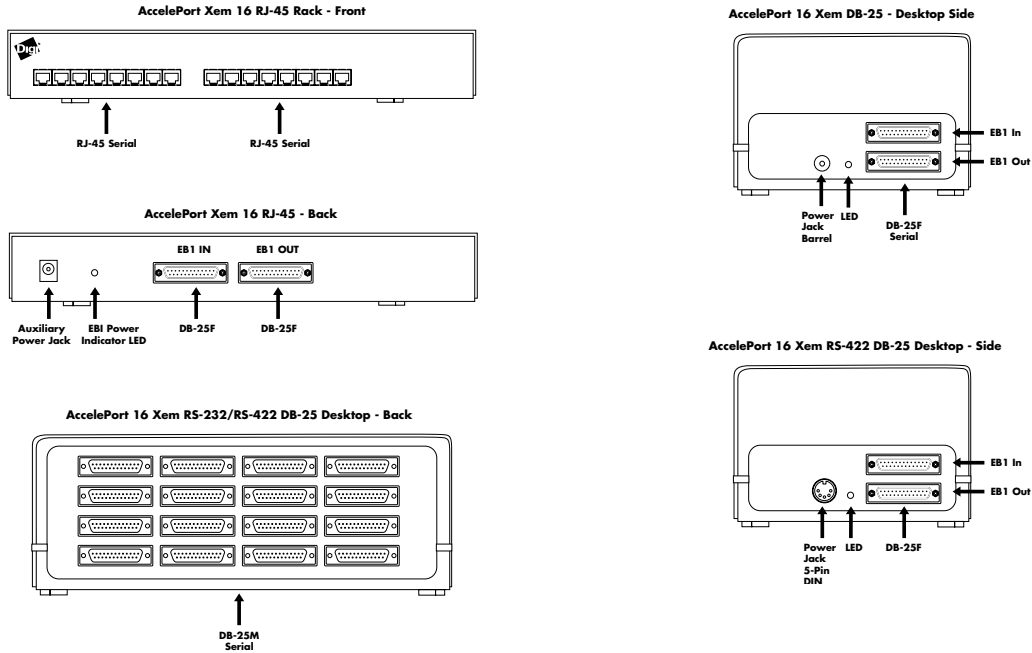
## Point-of-Sale



The Makers of the Original  
**DigiBoard**



# AccelePort® Xem :: Expandable Asynchronous Serial Cards



## Part Numbers ::

North America International

### Model

#### 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) Low Profile*	77000877	77000877
AccelePort Xem Universal PCI (3.3V & 5V) High Profile*	77000887	77000887

#### 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

\* This package contains a full-height PCI bracket that can be replaced using a small screwdriver.

All cables and accessories: pg. 158, 164.  
See website for complete specifications.

# Digi Neo® :: Enhanced Asynchronous Serial Cards

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**Overview ::** Digi Neo delivers reliable serial port expansion in standard and low profile Universal PCI boards, with throughput speeds exceeding 460.8 Kbps. Its low profile size makes it one of the smallest form factor serial card solutions on the market today – and the industry’s first low profile eight-port solution on a single card. Extensive cabling and software driver options provide maximum flexibility in installations.

+

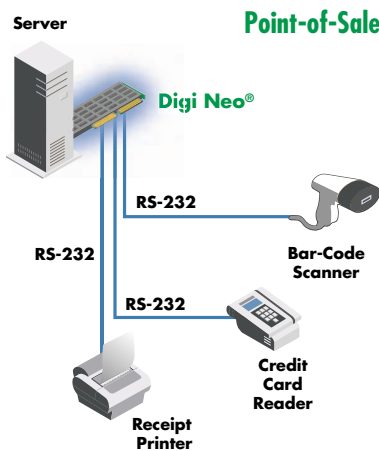
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## + Features ::

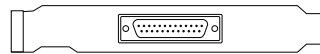
- Universal PCI (3.3V and 5.5V) bus slot support
- Enhanced monitoring and diagnostic tool for ease-of-use
- Flexible cabling/connector options
- Surge suppression on all signals ensures voltage fluctuations will not degrade data transmissions
- Low latency for reliable performance
- Powered serial port 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
- 5-year warranty

## + Specifications ::

- 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 600mA
- Full modem control
- Hardware or software flow control
- Low latency - same or better than standard COM port
- Custom baud rates
- 16C850 UART equivalent

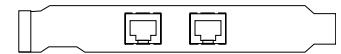


Digi Neo 1 DB-25



DB-25M  
Serial

Digi Neo 2 RJ-45



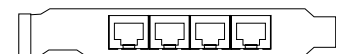
RJ-45  
Serial

Digi Neo 2 DB-9



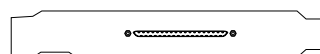
DB-9M  
Serial

Digi Neo 4 RJ-45



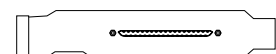
RJ-45  
Serial

Digi Neo 4/8



HD-68  
Pin

Digi Neo 4/8 Low Profile



HD-68  
Pin

The Makers of the Original  
**DigiBoard®**





## Part Numbers ::

North America    International

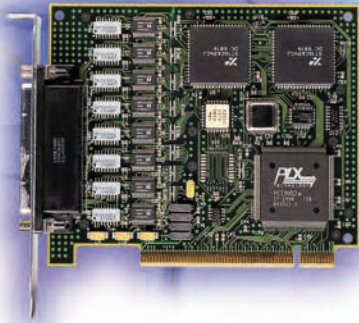
Model	North America	International
<b>Universal PCI (3.3V &amp; 5V) RS-232</b>		
Digi Neo Universal PCI (3.3V & 5V) 1-Port DB-25M	77000864	77000864
Digi Neo Universal PCI (3.3V & 5V) 2-Port DB-9M	77000847	77000847
Digi Neo Universal PCI (3.3V & 5V) 2-Port RJ-45	77000848	77000848
Digi Neo Universal PCI (3.3V & 5V) 4-Port RJ-45	77000855	77000855
Digi Neo Universal PCI (3.3V & 5V) 4-Port w/o Cables	77000857	77000857
Digi Neo Universal PCI (3.3V & 5V) 8-Port w/o Cables	77000858	77000858
Digi Neo Universal PCI (3.3V & 5V) 4-Port w/DB-25M Fan-Out Cables	70001946	70001946
Digi Neo Universal PCI (3.3V & 5V) 8-Port w/DB-25M Fan-out Cables	70001947	70001947
<b>Universal PCI (3.3V &amp; 5V) Low Profile RS-232</b>		
Digi Neo Universal PCI (3.3V & 5V) Low Profile w/2-Port DB-9M Fan-Out Cable	70001965	70001965
Digi Neo Universal PCI (3.3V & 5V) 1-Port DB-25M Low Profile	77000865	77000865
Digi Neo Universal PCI (3.3V & 5V) 2-Port RJ-45 Low Profile	77000849	77000849
Digi Neo Universal PCI (3.3V & 5V) 4-Port Low Profile (board only)*	77000835	77000835
Digi Neo Universal PCI (3.3V & 5V) 8-Port Low Profile (board only)*	77000836	77000836
<b>Powered (5V) Serial Ports RS-232</b>		
Digi Neo Universal PCI (3.3V & 5V) 2-Port DB-9M	77000851	77000851
Digi Neo Universal PCI (3.3V & 5V) 2-Port RJ-45	77000852	77000852
Digi Neo Universal PCI (3.3V & 5V) 2-Port RJ-45 Low Profile	77000853	77000853
Digi Neo Universal PCI (3.3V & 5V) 4-Port RJ-45	77000856	77000856
<b>Digi Neo Cable Upgrade Kit</b>		
Digi Neo 2-Port DB-9M Fan-Out Cable	76000713	76000713
<b>Digi Neo HD-68 Cabling Accessories</b>		
4-Port DB-25M Straight Fan-Out Cable	76000522	76000522
4-Port DB-9M Straight Fan-Out Cable	76000528	76000528
4-Port DB-25F Straight Fan-Out Cable	76000532	76000532
4-Port DB-9F Straight Fan-Out Cable	76000530	76000530
4-Port DB-25M Straight Connector Box w/Cable	76000524	76000524
4-Port DB-9M Straight Connector Box w/Cable	76000560	76000560
4-Port RJ-45 Straight Connector Box w/Cable	76000526	76000526
8-Port DB-25M Straight Fan-Out Cable	76000523	76000523
8-Port DB-9M Straight Fan-Out Cable	76000529	76000529
8-Port DB-25F Straight Fan-Out Cable	76000533	76000533
8-Port DB-9F Straight Fan-Out Cable	76000531	76000531
8-Port DB-25M Straight Connector Box w/Cable	76000525	76000525
8-Port DB-9M Straight Connector Box w/Cable	76000561	76000561
8-Port RJ-45 Straight Connector Box w/Cable	76000527	76000527
16-Port 2U 19" Rack w/DB-25M Connectors (use w/two 8-port Digi Neo cards)	76000587	76000587
16-Port 1U 19" Rack w/RJ-45 Connectors (use w/two 8-port Digi Neo cards)	76000588	76000588
HD-68M to DB-78F Converter (use with legacy accessories)	76000534	76000534

\* This package contains a full-height PCI bracket that can be replaced using a small screwdriver.

**All cables and accessories: pg. 158, 162.**

# ClassicBoard™ :: Enhanced Asynchronous Serial Cards

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**Overview ::** The ClassicBoard family of PCI and ISA serial cards is best suited for applications where the CPU is able to devote some of its resources to handling computations or for real-time applications that require short latency intervals. It is ideal for connecting cash registers, print receipt devices, scanners and other peripheral devices in retail POS systems as well in applications using peripherals such as sensors, switches, measurement devices and more.

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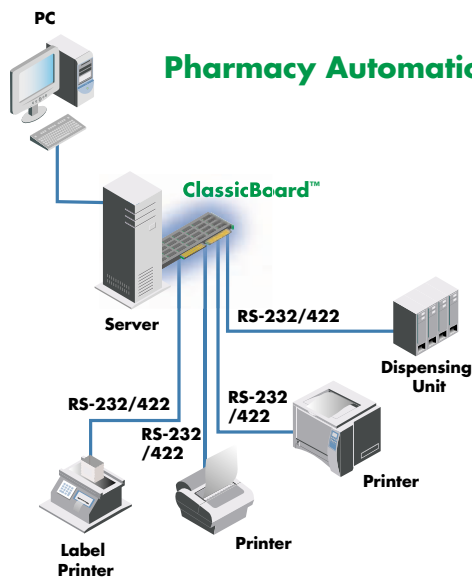
## + Features ::

- Cost-effective solution for retail/POS systems, Electronic Data Interchange (EDI), industrial automation and other applications where low latency is required
- ISA and PCI bus support
- RS-232 and RS-422 models for cabling flexibility
- Easy to install – no DIP switches or jumpers to set
- Every signal safeguarded by built-in surge protection
- 5-year warranty

## + Specifications ::

- 4 or 8 RS-232 or RS-422 serial ports
- DB-9, DB-25 and RJ-45 connectors
- Supports speeds up to 460.8 Kbps
- 32-bit PCI slot
- Full-duplex operation
- Multi-strike surge suppression on every signal
- 16C654 UARTs providing automatic flow control and 64-byte FIFO
- Supports auto configuration of all PCI interrupts
- Powered (5V) serial port options using Ring Indicator signal @ 600 mA

See website for complete specifications, including ISA models.



## Part Numbers ::

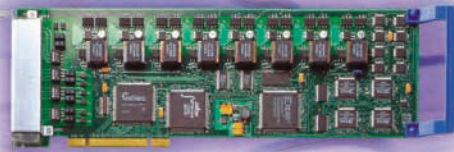
North America    International

Model	North America	International
<b>ClassicBoard RS-232 PCI (PCI 5V)</b>		
ClassicBoard PCI (5V) 4-Port RS-232 w/o Cables	77000576	77000576
ClassicBoard PCI (5V) 8-Port RS-232 w/o Cables	77000578	77000578
ClassicBoard PCI (5V) 4-Port w/Powered 5V Serial Ports RS-232 w/o Cables	77000771	77000771
ClassicBoard PCI (5V) 8-Port w/Powered 5V Serial Ports RS-232 w/o Cables	77000770	77000770
<b>ClassicBoard RS-422 PCI (PCI 5V)</b>		
ClassicBoard PCI (5V) 4-Port RS-422	77000862	77000862
ClassicBoard PCI (5V) 8-Port RS-422	77000863	77000863
<b>Accessories for RS-232</b>		
4-Port Straight DB-9M Fan-Out Cable	76000003	76000003
8-Port Straight DB-9M Fan-Out Cable	76002042	76002042
4-Port Straight DB-25M Fan-Out Cable	76000008	76000008
8-Port Straight DB-25M Fan-Out Cable	76000021	76000021
4-Port Straight DB-25M Connector Box	76000030	76000030
8-Port Straight DB-25M Connector Box	76000031	76000031
4-Port RJ-45 Connector Box	76000038	76000038
8-Port RJ-45 Connector Box	76000033	76000033
4-Port Straight DB-25F Fan-Out Cable	76000006	76000006
8-Port Straight DB-25F Fan-Out Cable	76000019	76000019
<b>Accessories for RS-422</b>		
4-Port DB-9F RS-422 Fan-Out Cable	76000002	76000002
8-Port DB-9F RS-422 Fan-Out Cable	76000014	76000014
4-Port DB-9M RS-422 Fan-Out Cable	76000004	76000004
8-Port DB-9M RS-422 Fan-Out Cable	76000017	76000017
4-Port DB-25M RS-422 Fan-Out Cable	76000178	76000178
8-Port DB-25M RS-422 Fan-Out Cable	76000179	76000179

All cables and accessories: pg. 158, 163.  
 ISA solutions also available. See our website for details.

# AccelePort RAS® :: Multi-Modem Communication Adapters

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**Overview ::** AccelePort RAS multi-modem analog adapters provide high-performance and cost-effective communication abilities. They are the ideal choice for a wide variety of applications including data acquisition, fax connectivity, Remote Access Services (RAS), modem pooling and branch office gateways.

+

## + Features ::

- Up to 8 ports with full V.90 modem and fax support
- Highly flexible design based on Digital Signal Processors (DSPs)
- Universal PCI adapter supporting 3.3V and 5V PCI systems
- Scalable system architecture allows additional boards to be added to the system
- Wide operating system and third-party application support
- PortAssist® Manager software included for web-based monitoring and control
- Software and hardware modem reset of individual modems
- Ideal for data acquisition, RAS, modem pooling, branch office gateways and fax connectivity
- 5-year warranty

+

## + Specifications ::

- 4 or 8 analog modems per slot
- RJ-11 modular connectors

### Modem Type

- DSP
- Software upgradeable

### Bus Type

- 32-bit PCI
- Bus Master Design
- Universal 3.3V and 5V PCI support
- PCI/PCI-X compatible

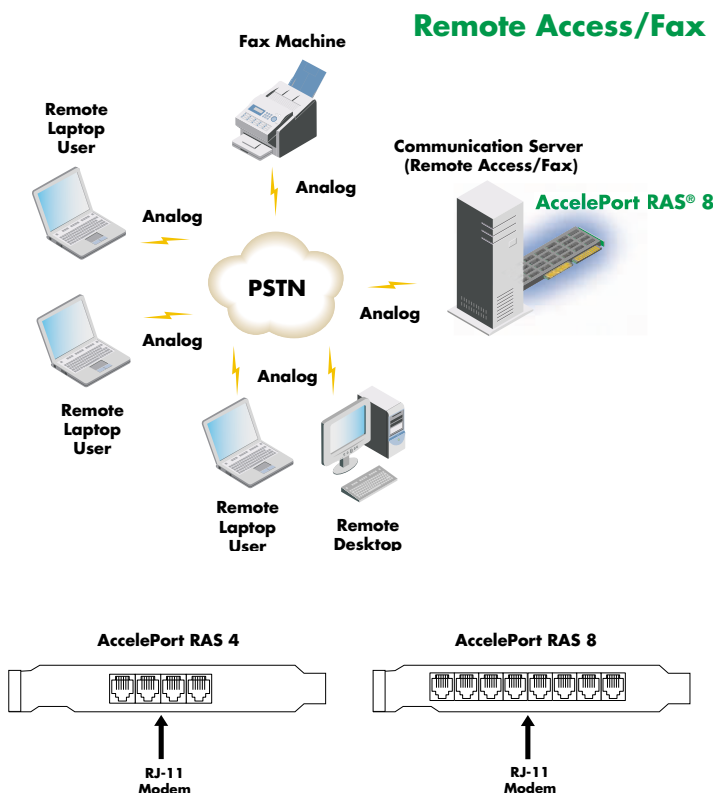
### Fax Feature Set

- Fax class 2/2.0
- Class 2.0 Error Correction Mode
- Supports all optional class 2.0 data format conversions 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

### Modem Standards Compatibility

- Data Modes
  - V.90
  - K56flex
  - V.34, V.32 bis, V.32, V.24 bis, V.23, V.22bis, V.22, V.21
  - Bell 212a, Bell 103,
- Compression
  - V.42 bis
  - MNP Class 2, 4, and 5
- Error Correction
  - V.42
- Fax Modes
  - Group 3
  - V.17, V.29, V.27 ter, V.21 channel 2

See website for complete specifications.  
USB RAS solutions also available (pg. 112).



The AccelePort RAS family of multi-modem communication adapters provides the widest compatibility and most powerful performance available for demanding applications such as fax servers, remote access, data acquisition and modem pooling and modem data pooling. AccelePort RAS can be used to manage multiple fax machines in a small business to a single server; to perform data collection/acquisition via multiple analog lines; or for back room remote access to various company branches.

## 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 RAS cards 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 hardware 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 RAS channel operates independently and supports the widest range of analog clients for complete and accurate call completion at the highest data rate possible.

## OS Integration and Use of Standard APIs

AccelePort RAS integrates with and takes advantage of the inherent communication capabilities already built into your OS environment. Use of standard APIs means installation and management of your ports is completely familiar and intuitive to network administrators. In addition, AccelePort RAS facilitates simple deployment of software application solutions based on existing interfaces provided in the OS.

## Part Numbers ::

Model	
AccelePort RAS 4 North America	77000616
AccelePort RAS 4 Europe (Austria, Belgium, Denmark, Finland, Greece, Iceland, Italy, Ireland, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, UK)	77000617
AccelePort RAS 4 Germany, South Africa	77000618
AccelePort RAS 4 Australia, New Zealand, Switzerland	77000619
AccelePort RAS 4 Latin America (Mexico, Argentina, Chile)	77000775
AccelePort RAS 4 Asia (Japan, Singapore, Hong Kong, Korea, Taiwan)	77000776
AccelePort RAS 4 Israel, Hungary	77000777
AccelePort RAS 8 North America	77000583
AccelePort RAS 8 Europe (Austria, Belgium, Denmark, Finland, Greece, Iceland, Italy, Ireland, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, UK)	77000584
AccelePort RAS 8 Germany, South Africa	77000585
AccelePort RAS 8 Australia, New Zealand, Switzerland	77000586
AccelePort RAS 8 Latin America (Mexico, Argentina, Chile)	77000772
AccelePort RAS 8 Asia (Japan, Singapore, Hong Kong, Korea, Taiwan)	77000773
AccelePort RAS 8 Israel, Hungary	77000774

# Options/Accessories :: Cabling, Mounting, Antennas and More

**AccelePort® Xp, ConnectPort™ Display, Digi One® Family (DB-9 Ports), Digi Neo®, PortServer® TS Family (RJ-45 Ports) ::**

**With RJ-45 Connector Boxes: AccelePort® C/X, AccelePort® Xem, AccelePort Xr 920, ClassicBoard™ ::**



## Part Numbers :: North America    International

### Cables

	North America	International
24" RJ-45/DB-25M Straight Cable	76000129	76000129
48" RJ-45/DB-25M Straight Cable	76000195	76000195
48" RJ-45/DB-25F Crossover Cable	76000644	76000644
24" RJ-45/DB-25F Straight Cable	76000198	76000198
48" RJ-45/DB-25F Straight Cable	76000199	76000199
24" RJ-45/DB-9F Straight Cable	76000200	76000200
48" RJ-45/DB-9F Straight Cable	76000201	76000201
48" RJ-45/DB-25M Crossover Cable	76000238	76000238
24" RJ-45/DB-9M Straight Cable	76000239	76000239
48" RJ-45/DB-9M Straight Cable	76000240	76000240
48" RJ-45/DB-9F Crossover Cable	76000645	76000645
24" RJ-45/DB-25M Printer Cable	76000643	76000643
48" RJ-45/DB-9M Crossover Cable	76000264	76000264
48" DB-9F/DB-9F Crossover Cable (works with all DB-9 products)	76000642	76000642
RJ-45 10-Pin to RJ-45 8-Pin Modem Cable	76000566	76000566
48" RJ-45 Bare Wire Cable	76000723	76000723
48" DB-9 Bare Wire Cable (Digi One devices)	76000724	76000724
6' RJ-45 to Sun Netra/Cisco RJ-45 Cable	76000631	76000631
6' Bundle of 8 RJ-45 to Sun Netra/Cisco RJ-45 Cable	76000632	76000632
6' Bundle of 16 RJ-45 to Sun Netra/Cisco RJ-45 Cable	76000633	76000633
Digi Cable Evaluation Kit	76000663	76000663

### Cable Adapters

RJ-45F/DB-9F Console Adapter (4-pack)	76000697	76000697
RJ-45F/DB-25M Console Adapter (4-pack)	76000698	76000698
RJ-45F/DB-25F Console Adapter (4-pack)	76000699	76000699
RJ-45F/DB-25M Modem Adapter (4-pack)	76000700	76000700
RJ-45F/DB-9M Modem Adapter (4-pack)	76000701	76000701
RJ-45F/DB-25M Printer Adapter (4-pack)	76000692	76000692
Digi Cable Adapter Evaluation Kit	76000693	76000693

# Options/Accessories :: Cabling, Mounting, Antennas and More

## Digi Connect® ES, Digi One® Family, PortServer® TS Family ::



Part Numbers :: North America International

### Mounting Options

Rack Mount Shelf - PortServer TS (4 units of PortServer TS 1/2/4 family, 2 units of PortServer TS 8)	76000676	76000676
Wall Mount Bracket with Power Cord Holder - PortServer TS 1/2/4 family	76000640	76000640
Wall Mount Bracket - PortServer TS 1/2/4 family	76000641	76000641
DIN Rail Bracket Kit - PortServer TS 1/2/4 family	76000756	76000756
DIN Rail Bracket Kit - PortServer TS 1/2/4 family (10-pack bulk)	76000756-B10	76000756-B10
Wall Mount Bracket Kit - Digi One SP	76000662	76000662
23" Telco Rack Mount Kit - PortServer TS 16 Rack	76000689	76000689
Digi Connect ES VESA Wall Mounting Bracket	DC-ES-BKT	DC-ES-BKT

### Power Supplies - PortServer TS

12VDC Extended Temperature Power Supply, Wall Mount - PortServer TS H MEI	76000717	76000717
Digi 48" Power Cord, Locking Barrel to Bare Wire - PortServer TS family	76000732	76000732
12VDC Extended Temperature Power Supply w/ Locking Barrel Connector - PortServer TS H MEI	76000752	76000752
12VDC, 100-240VAC Extended Temp Power Supply, No Plug - PortServer TS H <sup>cc</sup> MEI	76000736	76000736
12VDC 100/240VAC 10W Power Supply	76000738	76000738
48VDC to 12VDC Power Converter	76000696	76000696
PortServer II Desktop 120-240VAC Power Supply	76000694	76000694
12V 100/240 Power Supply with Locking Barrel	76000734	76000734
Replacement 12VDC Power Supply (wall mount)	76000737	N/A
Replacement 12V Power Supply (small brick)	76000654	76000654
12VDC/.5A 120VAC Power Supply with Locking Barrel, Wall Mount	76000735	N/A
3.3VDC Power Supply, Small Brick	76000653	76000653

## Digi CM™, Digi Passport™ ::



Part Numbers :: North America International

### Cable Adapters

RJ-45F/DB-25M Modem Adapter (8-pack)	76000670	76000670
RJ-45F/DB-9F Console Adapter (8-pack)	76000671	76000671
RJ-45F/DB-25M Console Adapter (8-pack)	76000672	76000672
RJ-45F/DB-25F Console Adapter (8-pack)	76000673	76000673
RJ-45F/DB-9M Modem Adapter (8-pack)	76000702	76000702

### Power Supplies

Digi CM 8-Port 120-240VAC Power Supply	76000695	76000695
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### Mounting Options

23" Telco Rack Mount Kit - Digi CM 16/32	76000689	76000689
19" Rack Mount Kit - Digi CM 8	76000705	76000705

# Options/Accessories :: Cabling, Mounting, Antennas and More

## ConnectPort™ WAN VPN, Digi Connect® WAN Family ::



Part Numbers :: North America      International

### Mounting Options

Wall Mount Bracket with Power Cord Holder – Digi Connect WAN family	DC-BKT-CWAN	DC-BKT-CWAN
DIN Rail Bracket Kit – Digi Connect WAN family	76000756	76000756
DIN Rail Bracket Kit – Digi Connect WAN family (10-pack bulk)	76000756-B10	76000756-B10
DIN Rail Mounting Bracket – ConnectPort WAN VPN	76000682	76000682

### Power Supplies

Extended Temperature Hardened Power Supply with Locking Barrel Connector	76000652	76000652
12VDC Extended Temperature Power Supply, Wall Mount	76000717	76000717
48VDC to 12VDC Power Converter	76000696	76000696

### Cable Adapters

48" DB-9F/DB-9F Crossover Cable (works with all DB-9 products)	76000642	76000642
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### Dipole Antennas

Dual Band Wireless Dipole Antenna 7" – Up to 3 dbi gain	DC-ANT-DBDP3	DC-ANT-DBDP3
Dual Band Wireless Dipole Antenna 7" (25-unit pack)	DC-ANT-DBDP3-25	DC-ANT-DBDP3-25
Dual Band Wireless Hi-Gain Antenna 14" – Up to 4 dbi gain	DC-ANT-DBHG	DC-ANT-DBHG
Dual Band Wireless Hi-Gain Antenna 14" (25-unit pack)	DC-ANT-DBHG-25	DC-ANT-DBHG-25

### Desktop Antennas

Dual Band Wireless Desktop Antenna 2.8"	DC-ANT-DBDT	DC-ANT-DBDT
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### Monopole Antennas

Dual Band Wireless Monopole Antenna 2" – Up to 0.8 dbi gain	DC-ANT-DBMP	DC-ANT-DBMP-W
Dual Band Wireless Monopole Antenna 2" – Up to 0.8 dbi gain	DC-ANT-DBMP	DC-ANT-DBMP-W
Dual Band Wireless Monopole Antenna 2" (25-unit pack)	DC-ANT-DBMP-25	DC-ANT-DBMP-W-25

### USB Camera

Watchport/V2 USB Camera	301-9010-01	301-9010-01
Watchport/V3 USB Camera – Non-interlaced model	301-9010-02	301-9010-02



# Options/Accessories :: Cabling, Mounting, Antennas and More

**AnywhereUSB®, ConnectPort™ Display, Edgeport®, Hubport®, Rapidport/4®, USB Plus Series, Watchport® USB Cameras ::**

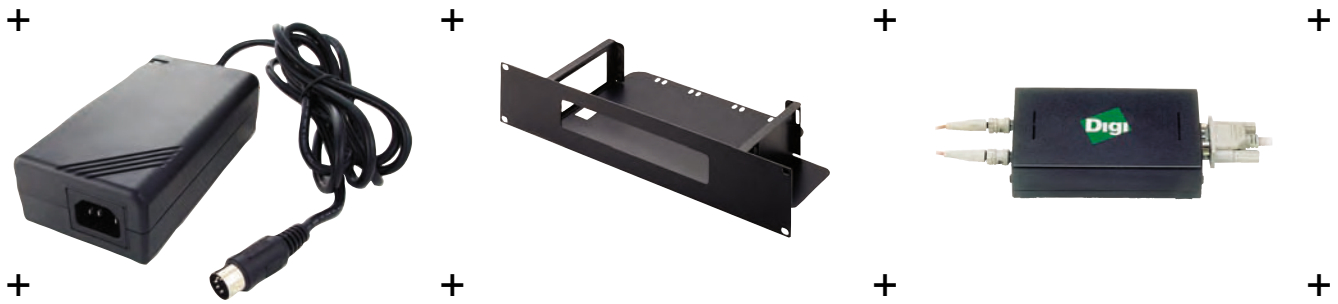


## Part Numbers :: North America International

	North America	International
<b>Cables</b>		
1-Meter A to B USB Cable	301-9000-01	301-9000-01
2-Meter A to B USB Cable	301-9000-07	301-9000-07
3-Meter A to B USB Cable	301-9000-06	301-9000-06
4-Meter A to B USB Cable	301-9000-10	301-9000-10
5-Meter A to B USB Cable	301-9000-02	301-9000-02
5-Meter USB Repeater Cable	301-9002-01	301-9002-01
6' USB to Parallel Printer Cable	301-9006-01	N/A
<b>Cable Adapters</b>		
USB Upgrade Kit PCI to USB Expansion Card	301-1101-01	N/A
<b>Mounting Options</b>		
19" Rack Mount Kit	301-9001-01	301-9001-01
Small Shelf Bracket	301-9003-01	301-9003-01
Large Shelf Bracket	301-9004-01	301-9004-01
<b>USB Camera Accessories</b>		
Watchport USB Camera Lens Pack (3 mm wide angle, 8 mm close-up, 12 mm telephoto)	301-9015-01	301-9015-01
Watchport USB Camera Wall Mount	301-9018-01	301-9018-01
Watchport USB Camera Clamp Mount	301-9019-01	301-9019-01
Watchport USB Camera VESA Mount	301-9025-01	301-9025-01

# Options/Accessories :: Cabling, Mounting, Antennas and More

## AccelePort® C/X ::



Part Numbers :: North America    International

### Power Supplies

Acceleport C/CON Desktop 120-240VAC Power Supply	76000351	76000694
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### Upgrade Kit

AccelePort C/CON RS/6000 Compatibility Upgrade Kit (for 16-port C/CON only)	70001385	70001385
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### Accessories

AccelePort C/X Fiber Link Adapter	76000071	76000107
AccelePort C/X Host Adapter to RS-232 Sync Modem Cable	76000211	76000211
AccelePort C/X Host RS-232 Sync Modem to Remote Concentrator	76000212	76000212

### Mounting Options

19" Rack Chassis - 2U for AccelePort C/CON and Digi PORTS/Xem	76000611	76000611
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## AccelePort® Xp, Digi Neo® ::



Part Numbers :: North America    International

### Connector Options

4-Port DB-25M Straight Fan-Out Cable	76000522	76000522
4-Port DB-25F Straight Fan-Out Cable	76000532	76000532
4-Port DB-9M Straight Fan-Out Cable	76000528	76000528
4-Port DB-9F Straight Fan-Out Cable	76000530	76000530
4-Port DB-25M Straight Connector Box	76000524	76000524
4-Port DB-9M Straight Connector Box	76000560	76000560
4-Port RJ-45 Straight Connector Box	76000526	76000526
8-Port DB-25M Straight Fan-Out Cable	76000523	76000523
8-Port DB-25F Straight Fan-Out Cable	76000533	76000533
8-Port DB-9M Straight Fan-Out Cable	76000529	76000529
8-Port DB-9F Straight Fan-Out Cable	76000531	76000531
8-Port DB-25M Straight Connector Box	76000525	76000525
8-Port DB-9M Straight Connector Box	76000561	76000561
8-Port RJ-45 Straight Connector Box	76000527	76000527
HD-68M to DB-78F Converter	76000534	76000534

### Mounting Options

16-Port 2U 19" Rack w/DB-25M Connectors	76000587	76000587
16-Port 1U 19" Rack w/RJ-45 Connectors	76000588	76000588

### Digi Neo Upgrade Kit

Digi Neo 2-Port DB-9M Fan-Out Cable	76000713	76000713
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# Options/Accessories :: Cabling, Mounting, Antennas and More

## AccelePort® Xr 920, ClassicBoard™ ::



### Part Numbers :: North America    International

#### Connector Options - RS-232

4-Port DB-25M Straight Fan-Out Cable	76000008	76000008
4-Port DB-9M Straight Fan-Out Cable	76000003	76000003
4-Port DB-25F Straight Fan-Out Cable	76000006	76000006
4-Port DB-9F Straight Fan-Out Cable	76000001	76000001
4-Port DB-25M Straight Connector Box	76000030	76000030
4-Port RJ-45 Connector Box	76000038	76000038
4-Port DB-25F Straight Connector Box	76000026	76000026
8-Port DB-25M Straight Fan-Out Cable	76000021	76000021
8-Port DB-9M Straight Fan-Out Cable	76002042	76002042
8-Port DB-25F Straight Fan-Out Cable	76000019	76000019
8-Port DB-25M Straight Connector Box	76000031	76000031
8-Port RJ-45 Connector Box	76000033	76000033
8-Port DB-25F Straight Connector Box	76000027	76000027

#### Connector Options - RS-422

4-Port RS-422 DB-9F Fan-Out Cable - AccelePort Xr, ClassicBoard	76000002	76000002
4-Port RS-422 DB-9M Fan-Out Cable - AccelePort Xr, ClassicBoard	76000004	76000004
4-Port RS-422 DB-25M Fan-Out Cable - AccelePort Xr, ClassicBoard	76000178	76000178
8-Port RS-422 DB-9F Fan-Out Cable - AccelePort Xr, ClassicBoard	76000014	76000014
8-Port RS-422 DB-9M Fan-Out Cable - AccelePort Xr, ClassicBoard	76000017	76000017
8-Port RS-422 DB-25M Fan-Out Cable - AccelePort Xr, ClassicBoard	76000179	76000179

# Options/Accessories :: Cabling, Mounting, Antennas and More

## AccelePort® Xem ::



Part Numbers ::	North America	International
<b>Cables</b>		
16" Daisy Chain Cable	76000707	76000707
60" Daisy Chain Cable	76000708	76000708
120" Daisy Chain Cable	76000709	76000709
<b>Power Supply</b>		
AccelePort Xem Power Supply	76000109	76000321
<b>Mounting Option</b>		
19" Rack Chassis - 2U for AccelePort C/CON and Digi PORTS/Xem	76000611	76000611

## Edgeport®/8r, EtherLite® ::



Part Numbers ::	North America	International
<b>Cable Adapters</b>		
RJ-45F/DB-25M Straight Adapter (4-pack)	76000450	76000450
RJ-45F/DB-25M Crossover Adapter (4-pack)	76000451	76000451
RJ-45F/DB-9F Crossover Adapter (4-pack)	76000461	76000461
<b>Power Supply</b>		
EtherLite/SCSI Universal (120V-240V) Power Supply	76000464	76000464

# Options/Accessories :: Cabling, Mounting, Antennas and More

## Digi Remote Power Manager (Digi RPM) ::

Part Numbers ::	North America	International
<b>Power Cords</b>		
Power Cord - US 15A plug to RPM input	76000818	N/A
Power Cord - UK plug to RPM input	N/A	76000819
Power Cord - International RPM output to end device	N/A	76000820

## ConnectCore™ Wi-9C, Digi Connect® Wi-EM, Digi Connect® Wi-ME, Digi Connect® Wi-SP, ::

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Part Numbers ::	North America	International
<b>Dipole Antennas</b>		
RP-SMA 2.4 GHz Dipole Antenna - 2 dBi gain (single-pack)	DG-ANT-20DP-BG	DG-ANT-20DP-BG
RP-SMA 2.4 GHz Dipole Antenna - 2 dBi gain (25-pack)	DG-ANT-20DB-BG-B	DG-ANT-20DB-BG-B
RP-SMA 2.4/5 GHz Dipole Antenna - 5 dBi gain (single-pack)*	DG-ANT-50DP-AG	DG-ANT-50DP-AG
RP-SMA 2.4/5 GHz Dipole Antenna - 5 dBi gain (25-pack)*	DG-ANT-50DP-AG-B	DG-ANT-50DP-AG-B
*Not approved for Digi Connect Wi-ME/Wi-EM		
<b>Dipole Extension Cords</b>		
RP-SMA Dipole Extension Cable w/Bulkhead Connector, 300 mm (single-pack)	DG-EXT-300-RR	DG-EXT-300-RR
RP-SMA Dipole Extension Cable w/Bulkhead Connector, 300 mm (25-pack)	DG-EXT-300-RR-B	DG-EXT-300-RR-B



## + Industry-Specific Applications ::

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By approaching our customers from an industry-specific perspective, we are able to find better solutions to common industry problems. This enables you to improve your business' efficiency, saving valuable time and money that would otherwise be spent solving critical connectivity challenges. It's easy to find the perfect solution for your application with our variety of network- and bus-based solutions.

### **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.

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.

### **Mission-Critical Enterprise Applications**

Digi products are used worldwide in a broad range of application. The following pages highlight some of our most successful applications with real world examples for each. Many of these challenges can be solved by more than one Digi solution. If you don't see your application listed, please call us. If it involves device networking, chances are we have done it before!

**WHEN**  
**RELIABILITY**  
**MATTERS™**



## + Now you can...

...establish a truly diverse backup network using high speed wireless/cellular technology with **ConnectPort WAN VPN**.

...use **Digi Connect WAN** to provide connectivity to remote sites and devices using high speed cellular networks.

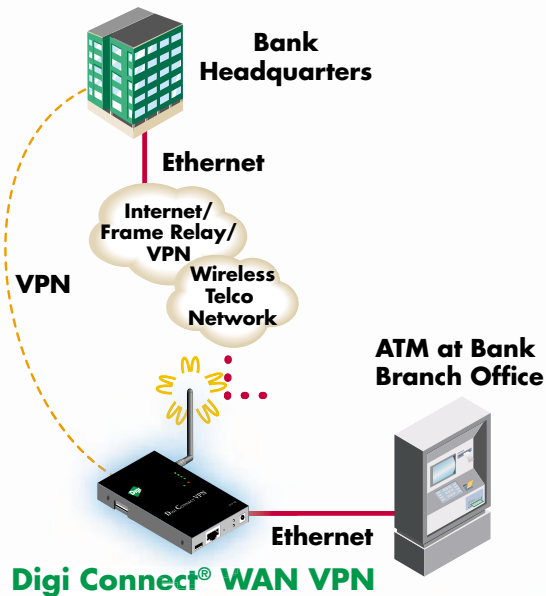
...connect RTUs, meters, flow computers or virtually any RS-232/422/485 serial device via POTS phone line with **PortServer TS M MEI**.

...perform enterprise management and configuration of groups of devices across remote networks with **Digi Connectware Manager**.

## + Remote Device Management ::

More customers than ever now require that not only the devices in their central data center be connected, but also devices at remote locations. Digi has identified this new opportunity as Remote Device Management.

With the Internet as the driving force, the expense and difficulty of expanding WANs into remote sites has been sharply reduced, allowing for remote sites and their devices to connect to the corporate network. Digi adds value by networking equipment which is not traditionally thought of as "networkable" because of cost, reliability and infrastructure limitations. Remote Device Management also makes connectivity to groups of remote IP devices easier and more reliable.

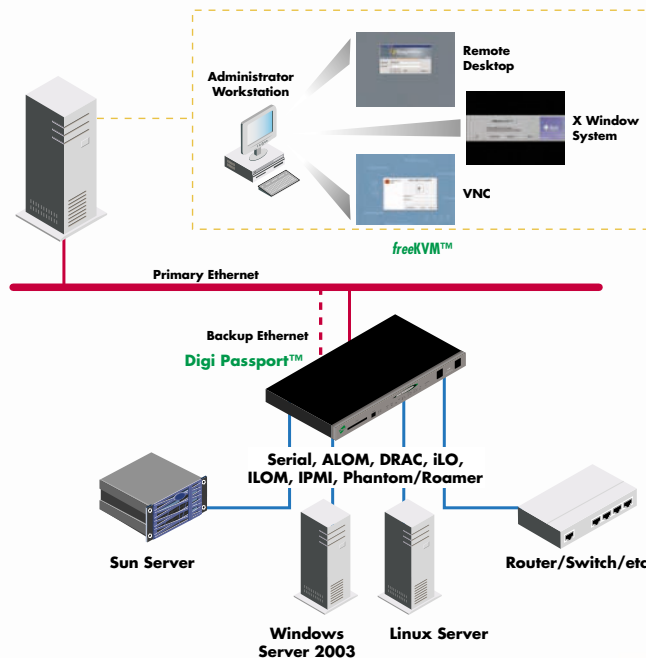






## + Data Center Management ::

Digi provides alternative connection methods to servers and infrastructure devices, enabling administrators to remotely access, diagnose and restore operationally distributed IT assets. Our console management devices are designed to integrate seamlessly into existing network architectures and give administrators a reliable and easy-to-use tool to automate many administrative tasks. These devices provide a cost-effective and time-saving alternative to local administration and promote better availability of the production infrastructure, as well as improved service levels and staff productivity.



## + Now you can...

..use **Digi Passport** to connect to the service processor managers of all major server vendors.

...graphically access managed systems using the Digi Passport's **freeKVM** feature.

...enable lights-out connectivity and remote infrastructure access across multiple data centers from a single secure web interface without additional software or licenses with **Digi Passport**.

...enforce strong security protocols with the **Digi Passport** by encrypting server and network management transactions while limiting exposure to outage and disruption by controlling access via centralized authentication.



## + Now you can...

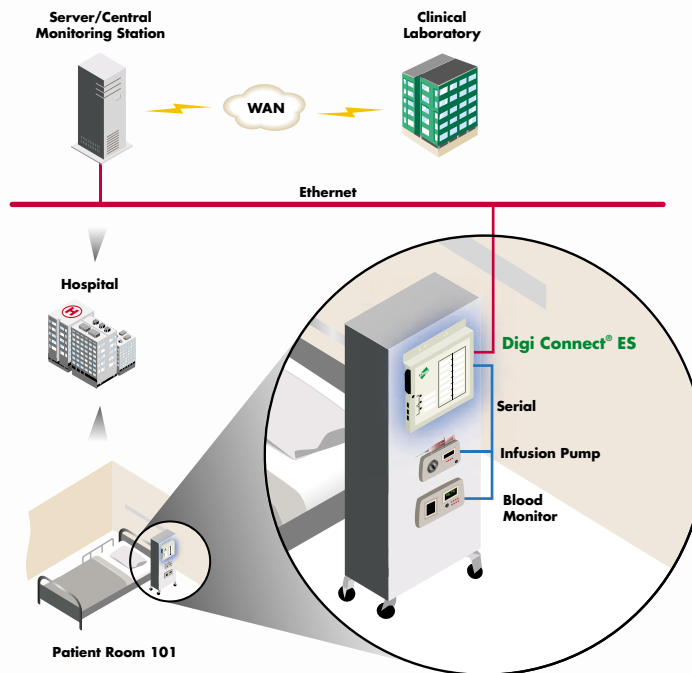
...collect bedside serial device data across a hospital's network with **Digi Connect ES**.

...standardize on a connectivity solution to manage distributed customer sites using the **PortServer TS family**.

...use **Digi Connect Wi-ME** to add embedded wireless functionality to medical devices.

## + **Medical/Healthcare** ::

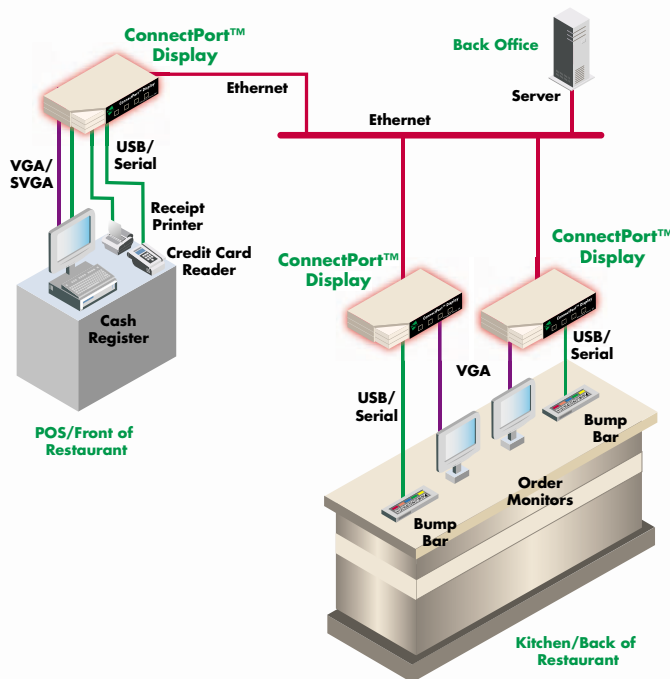
Hospitals, clinics and laboratories face rapidly growing needs to receive, monitor and access patient information quickly, easily and accurately, whether at the bedside, a nurse's station, or anywhere in the facility. Digi solutions improve patient point-of-care by network-enabling medical equipment and devices utilizing the hospital's existing Ethernet and wireless infrastructure.





## +Retail/Point-of-Sale ::

Whether you own a single convenience store or a chain of department stores, Digi offers solutions that can help to simplify your retail system architecture. Our solutions enable magnetic card readers, bar-code scanners, scales, receipt printers, display poles and other POS peripheral devices to effectively share information across the network.



## + Now you can...

...use **ConnectPort Display** to migrate from proprietary to standard Ethernet-based POS terminal systems.

...eliminate power supply bricks from USB peripheral devices with the **USB Plus Series**.

...optimize supply chain efficiency by automating delivery and pick-up of warehouse merchandise with the **PortServer TS family**.

...re-establish network communications using **ConnectPort WAN VPN** as a backup to landlines.



## + Now you can...

...implement serial-to-Ethernet connectivity to collect data from RTUs along a pipeline, without modifying the existing SCADA application with [PortServer TS Haz MEI](#).

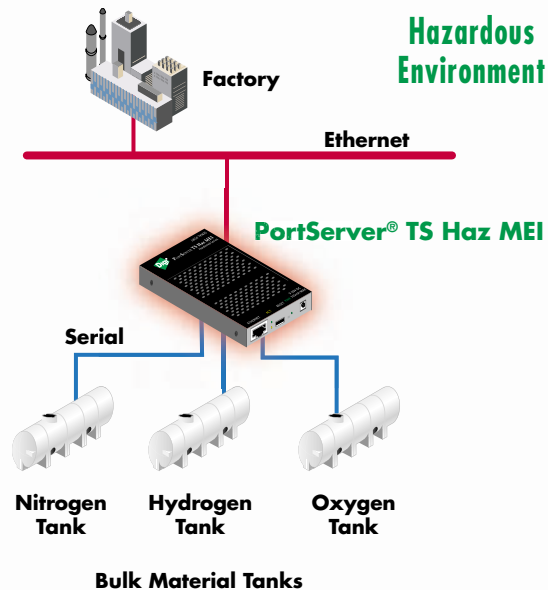
...use [Digi One IAP Haz](#) to automate data collection from devices inside grain elevators or other combustible environments.

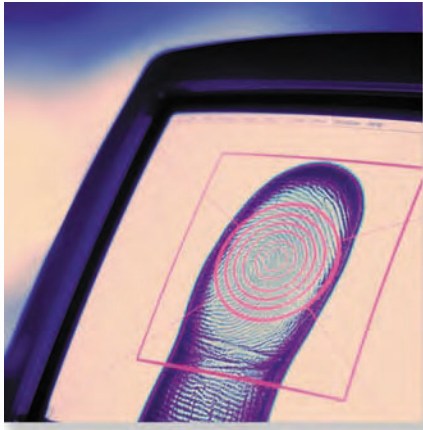
...utilize cellular data networks to capture data from equipment in hazardous locations using [Digi Connect WAN IA](#).

...monitor for visible toxic gas leaks in chemical plants using a [Watchport USB camera](#).

## + Hazardous Environments ::

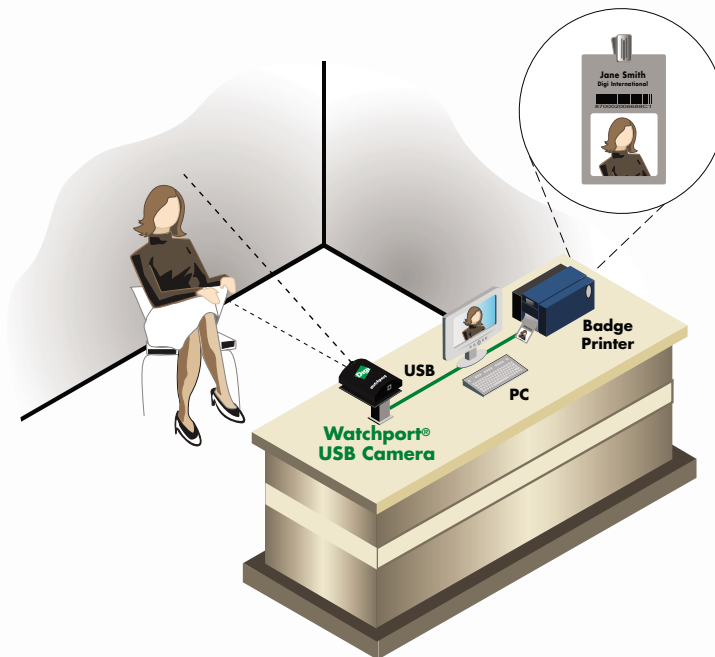
Digi offers a family of hardened products designed for safe, reliable performance in hazardous environments such as oil and gas pipelines, chemical factories, agriculture and grain storage, and power plants. These wired and wireless products meet stringent safety and technology requirements (e.g., extended temperature range and Class 1, Division 2 certification), enabling you to connect and remotely monitor devices such as flow meters, level sensors, RTUs, and pressure recorders.





## + Building Automation/Security ::

By focusing on the always-expanding building automation and security market, Digi is able to offer key solutions for critical applications such as time and attendance, biometrics, access control, intrusion detection, badging systems and building automation.



## + Now you can...

...replace expensive camera and video capture card systems with high quality, easy-to-use, low cost **Watchport USB cameras**.

...add network connectivity to legacy access control panels and have a migration path to a fully embedded solution with the **Digi Connect SP**.

...use **Digi Connect WAN** cellular gateways to control motel room temperatures based on occupancy information.

...use a USB biometrics reader for access control, without installing a PC at each doorway with **AnywhereUSB**.



## + Now you can...

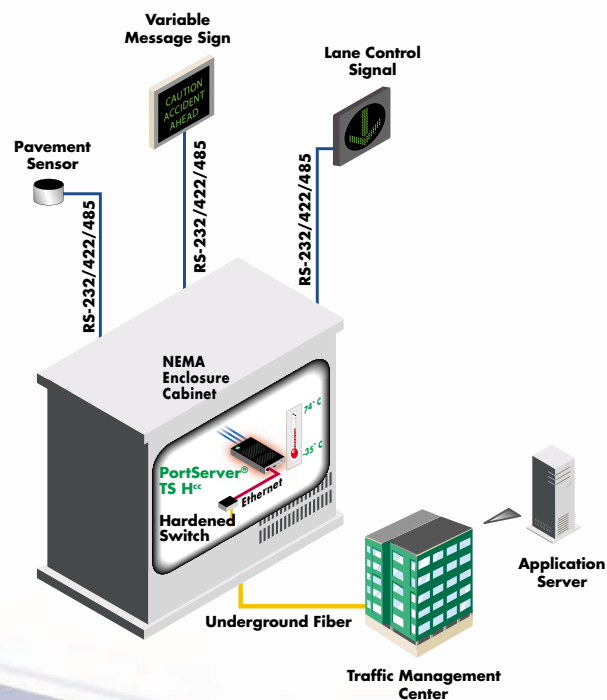
...utilize **PortServer TS Hcc** with patented **RealPort COM** redirection technology to easily migrate legacy serial traffic control devices to Ethernet.

...IP-enable Model 170 traffic controllers with the **Digi Connect N2S-170** plug-in card.

...connect IP-enabled cameras at sites without existing Ethernet infrastructure with **ConnectPort WAN VPN**.

## + Traffic Management ::

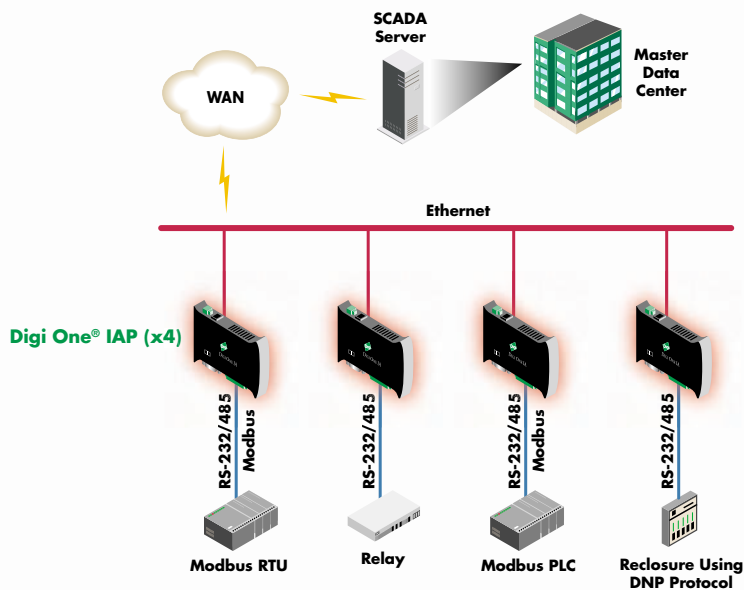
Traffic light coordination. Hazardous road condition alerts. Variable message sign updates. Lane control signals. Emergency vehicle detectors. These are some of the standard functions of a traffic management system. Digi offers a family of hardened products designed for the specific needs of the traffic industry including extended temperature range, conformal coating, and NEMA TS 2 compliance. These solutions make it easy to Ethernet-enable remote devices along roadsides and intersections allowing the Traffic Management Center access to real-time information.





## + Utilities ::

From large investor owned utilities to small co-operatives, the utilities industry has recognized the benefits of IP-based communication technologies. At the substation level, however, much of the communication hardware requires an RS-232 serial interface rather than an Ethernet connection. This equipment also utilizes proprietary protocols between the field equipment and the applications like SCADA, automatic meter reading and load management. Digi solves these compatibility issues with interface converters and patented RealPort COM port redirector software.



## + Now you can...

...network substation serial devices that use Modbus, DNP3 and other proprietary protocols with [Digi One IAP](#).

...create a redundant, scalable connectivity solution for SCADA servers at the master station with [AccelePort Xem](#) asynchronous concentrators.

...maintain reliable connections to remote utility sites via wireless communications using [Digi Connect WAN IA](#).

...gather real-time power metering data from substations across the Ethernet with [PortServer TS 4 MEI](#).



## + Now you can...

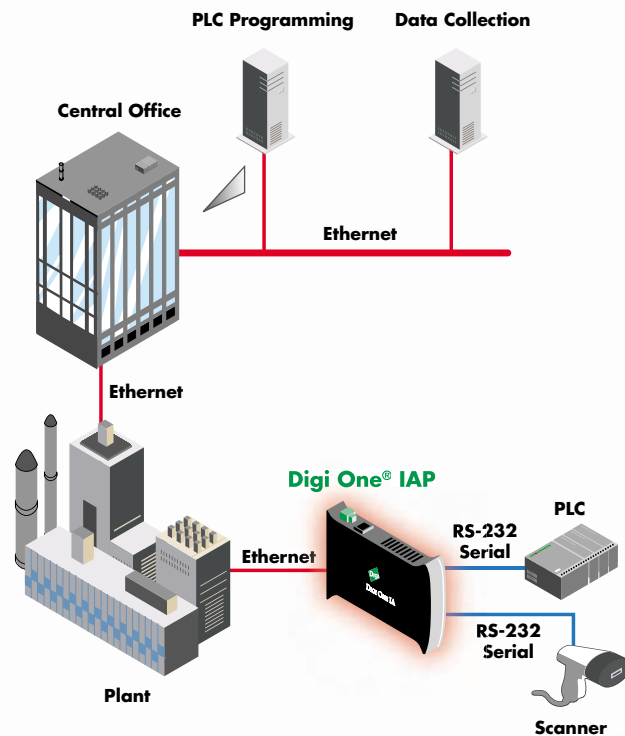
...use **Digi One IAP** to connect PLCs and bar-code scanners on the manufacturing floor, without expensive PCs and industrial protocol conversion software.

...eliminate industrial PCs and their associated contaminants and noise from clean rooms, without impacting established manufacturing processes, using **ConnectPort Display**.

...use the **PortServer TS family** to Ethernet-enable asynchronous serial devices such as control panels, meters and cameras, without impacting product time and costs.

## + Industrial Automation ::

Productivity improvements, inventory management and quality control are 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, operator displays, scales and many other types of manufacturing equipment is common. Digi solves these challenges with solutions designed to address the specific needs of the IA market.



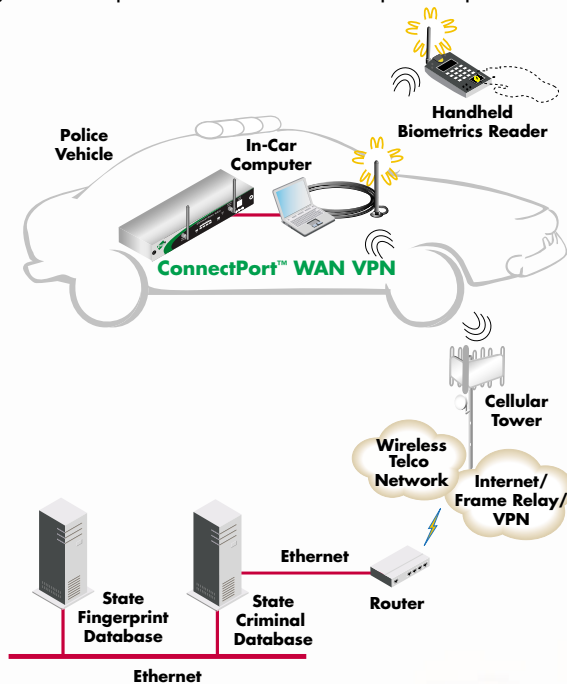




## + Government ::

Digi has served the government space for nearly 20 years, so we understand the special requirements and processes of government agencies. Our solutions can add value to your data center management, call center operations and security initiatives. We provide needs assessment to determine the requirements of your project, technical assistance with the solution, and ongoing technical support and training.

We offer GSA pricing (contract number GSA GS-35F-0351J) and the Digi GSA Online Store to make it easier than ever for our federal government partners and end users to procure products.



## + Now you can...

...use **Digi Passport** console servers to securely manage data centers from anywhere, at anytime.

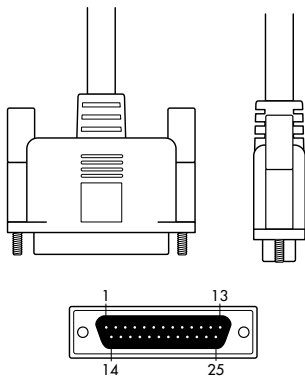
...integrate GPS devices into existing network infrastructure and provide serial surge protection with **PortServer TS 16**.

...update old computer systems seamlessly from ISA to PCI with **AccelePort Xem** expandable serial cards.

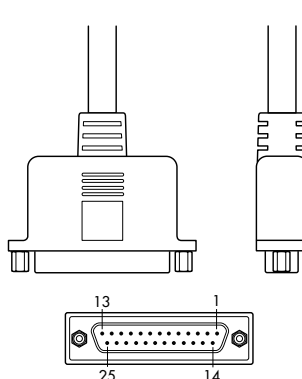
...consolidate cellular billing for devices connected inside patrol vehicles using **Digi Connect WAN**.

# Product Pinouts ::

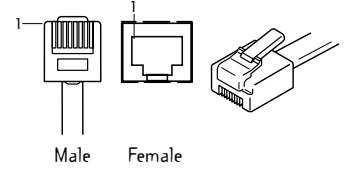
:: DB-25M



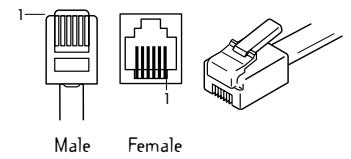
:: DB-25F



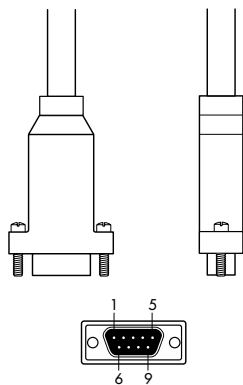
:: RJ-45



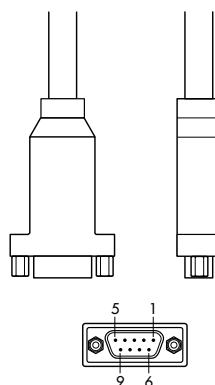
:: RJ-11



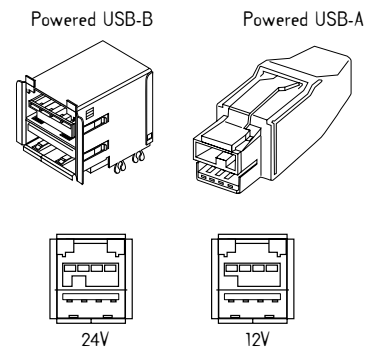
:: DB-9M



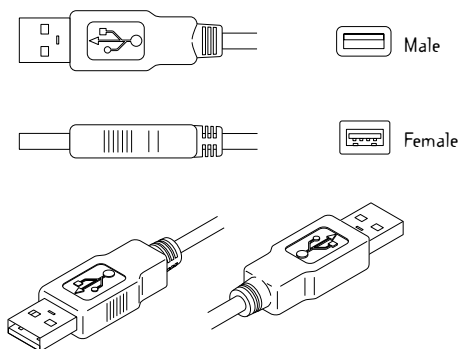
:: DB-9F



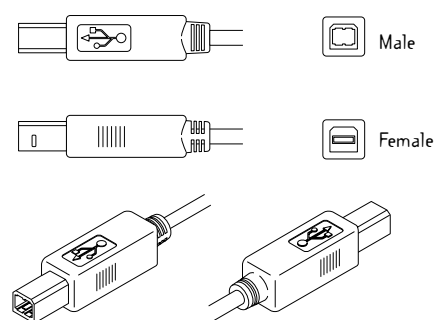
:: Powered USB



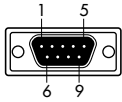
:: USB-A



:: USB-B



# Product Pinouts ::



DB-9

DB-9 Pin	RS-232*	RS-422/485 Full-Duplex	RS-485 Half-Duplex
1	DCD	CTS-	-
2	RxD	RxD+	RxD+
3	TxD	TxD+	TxD+
4	DTR	RTS-	-
5	SGND	SGND	SGND
6	DSR*	RxD-	RxD-
7	RTS	RTS+	-
8	CTS	CTS+	-
9	RI*	TxD-	TxD-

Ring Indicator - serial cards only.

\* Digi Connect WAN Sync uses the same signals as the RS-232 column, except pin 6 is RCLK and pin 9 is TCLK.

## :: Product

### Serial Servers:

- Digi One SP
- Digi One IA
- Digi One IAP
- Digi One IAP Ha
- Digi Connect SP
- Digi Connect Wi-SP

### USB PlusPower Converters (RS-232):

- Edgeport/42+

### Cellular Gateways:

- Digi Connect WAN Family
- Digi ConnectPort WAN VPN

### Serial Cards:

- Any DB-9 RS-232 pin assignment

### Zero-Clients:

- Connectport Display

### USB-to-Serial Converters (RS-232/422/485):

- Edgeport/4s MEI
- Edgeport/8s MEI

### USB-to-Serial Converters (RS-232):

#### Edgeport Standard:

- Edgeport/1
- Edgeport/2
- Edgeport/4
- Edgeport/416
- Edgeport/8

#### Edgeport Metal:

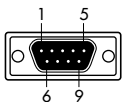
- Edgeport/2m
- Edgeport/4m

#### Edgeport Multi-Interface:

- Edgeport/21
- Edgeport/421

#### Edgeport Compact:

- Edgeport/2c
- Edgeport/22c



DB-9, RS-422/485

Pin	422/485
1	Full and Half Duplex
3	TxD+
4	RxD+
6	Echo On and Off
7	TxD+
8	RxD-
9	Line Termination

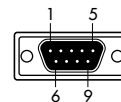
Any pin not shown is unused.

## :: Product

### USB-to-Serial Converters:

#### Edgeport Industrial:

- Edgeport/1i
- Edgeport/2i
- Edgeport/4s MEI
- Edgeport/8s MEI



DB-9, RS-422

DB-9 Pin	RS-422
2	RTS+
3	RTS-
4	CTS+
5	CTS-
6	RxD+
7	RxD-
8	TxD+
9	TxD-

## :: Product

### Serial Servers:

- All DB-9 RS-422

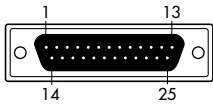
### Serial Cards:

- Any DB-9 RS-422 pin assignment

SGND = Signal Ground - References all of the signal grounds  
CGND = Chassis Ground - References Earth ground



# Product Pinouts ::



DB-25, RS-232

**:: Product**

Pin	Signal
1	CGND
2	TxD
3	RxD
4	RTS
5	CTS
6	DSR
7	SGND
8	DCD
20	DTR
22	RI

**Serial Cards:**

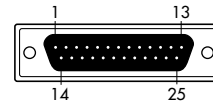
- Any DB-25 RS-232 pin assignment

**USB-to-Serial Converters:**

*Edgeport Standard:*

- Edgeport/4/DB-25
- Edgeport/416/DB-25
- Edgeport/8/DB-25

Any pin not shown is unused.



DB-25, RS-422

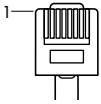
**:: Product**

Pin	Signal
2	TxD+
3	RxD+
4	RTS+
5	CTS+
13	CTS-
14	TxD-
16	RxD-
19	RTS-

**Serial Cards:**

- Any DB-25 RS-422 pin assignment

Any pin not shown is unused.



RJ-45

**:: Product**

RJ-45 Pin	Signal RS-232	Signal RS-422	Signal RS-485
1	RTS	RTS	No connect**
2	DSR	RxD-	No connect**
3	DCD	DCD*	No connect**
4	RxD	RxD+	TxD+/RxD+
5	TxD	TxD+	TxD-/RxD-
6	SGND	SGND	SGND
7	DTR	TxD-	No connect**
8	CTS	CTS*	No connect**

**Serial Servers:**

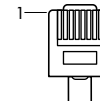
- EtherLite

**Edgeport Standard (RS-232):**

- Edgeport/8r

\*RS-232 signals on EtherLite RS-422 only.

\*\*Does not connect any signal.



RJ-45

**:: Product**

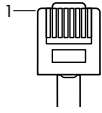
Pin	Signal
1	CTS
2	DSR
3	RxD
4	SGND
5	DCD*
6	TxD
7	DTR
8	RTS

**Console Servers:**

- Digi Passport
- Digi CM

\*Note: Inbound signal can also be used as a second ground.

# Product Pinouts ::



RJ-45

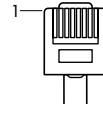
:: Product

Pin	Signal
1	RTS
2	DTR
3	TxD
4	SGND
5	DCD*
6	RxD
7	DSR
8	CTS

**Power Management:**

- Digi RPM

\*Note: Inbound signal can also be used as a second ground.



RJ-45 Ethernet

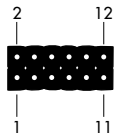
:: Product

Pin	Signal
1	TxD+
2	TxD-
3	RxD+
4*	EPWR+
5*	EPWR+
6	RxD-
7*	EPWR-
8*	EPWR-

**Embedded Modules:**

- Digi Connect ME
- Digi Connect EM

\*Pins 4, 5, 7, 8 not used by Digi Connect EM.



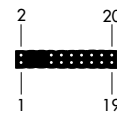
Power and Serial Interface  
Pin Assignments

:: Product

Pin	Signal
1	+3.3V
2	SGND
3	RxD/GPIO-7
4	TxD/GPIO-6
5	RTS/GPIO-4/SPI_CLK
6	DTR/GPIO-5
7	CTS/GPIO-2
8	DCD/GPIO-1/SPI_EN
9	DSR/GPIO-3
10	RTS
11	RxD/GPIO-9
12	TxD/GPIO-8

**Embedded Modules:**

- Digi Connect EM
- Digi Connect Wi-EM



Power and Serial Interface  
Pin Assignments

:: Product

Pin	Signal
1	VETH+
2	VETH-
7	RxD
8	TxD
9	RTS/GPIO 4
10	DTR/GPIO 5
11	CTS/GPIO 2
12	DSR/GPIO 3
13	DCD/GPIO 1
14	RESET
15	+3.3V
16	SGND
20	/INIT

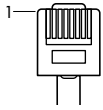
**Embedded Modules:**

- Digi Connect ME
- Digi Connect Wi-ME

Any pin not shown is unused.



# Product Pinouts ::



RJ-45

RS-232 Signal (8-Pin)	Pin	RS-232 Signal	Standard 10-Pin RS-422 Signal (4/8-Wire)	Optional 8-Pin RS-422 Signal (Alt-4-Wire) PortServer TS 8/16 MEI only	RS-485 (2-Wire Mode)
	1	RI	TxD-	-	-
1*	2*	DSR	RxD-	RxD-	Data-
2	3	RTS	RTS+	TxD+	-
3	4	SGND	SGND	SGND	SGND
4	5	TxD	TxD+	-	-
5	6	RxD	RxD+	RxD+	Data+
6	7	SGND	SGND	SGND	SGND
7	8	CTS	CTS+	-	-
8	9	DTR	RTS-	TxD-	-
	10	DCD	CTS-	-	-

\*Using Alt-Pin, the DSR and DCD signals can be swapped. Alt-Pin is a software option in the driver.

## :: Product

### Serial Servers:

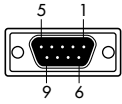
- PortServer TS Family
- PortServer TS MEI Family
- Digi Connect ES

### Serial Cards

- Any RJ-45 pin assignment

For a listing of cable and accessory pinouts go to [www.digi.com/support](http://www.digi.com/support)

# Product Pinouts ::



RS-422

Pin	RS-422	RS-485 (2-wire half-duplex)	RS-485 (4-wire)
1	DCD		
2	RXD	T/R-(TRA)	T-(TA)
3	TXD		R-(RA)
4	DTR		
5	GND	GND	GND
6	DSR		
7	RTS		R+ (RB)
8	CTS	T/R+ (TRB)	T+ (TB)
9	RI	PWR*	PWR*

Any pin not shown is unused.

\* PWR over pin 9 is not an option on XBee-PRO.

:: Product

## Digi-MaxStream RF Modems and Modules:

- XTend-PKG
- XStream-PKG
- XCite-PKG
- XBee-PRO



## **10/100Base-T**

Ethernet running on Unshielded Twisted Pair (UTP) cable with the amount of data transmitted between two points in a given amount of time being either 10 Mbps or 100 Mbps.

## **AES (Advanced Encryption Standard)**

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**

An easy and universal method to assign an IP address to an unconfigured Digi serial 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.

## **Automatic Device Recognition**

Digi CM feature that makes configuration and management of console servers easier by detecting which type of server, router or switch is connected to the unit.

## **CDMA (Code Division Multiple Access)**

A digital wireless technology that utilizes spread-spectrum techniques. Unlike competing systems such as GSM that use TDMA, CDMA does not assign a specific frequency to each user. Instead, every channel uses the full available spectrum. Individual conversations are encoded with a pseudo-random digital sequence.

## **CHAP (Challenge-Handshake Authentication Protocol)**

Standards-based security protocol commonly used to verify remote access logons by mobile and remote users; it will authenticate the user. CHAP validates users or systems with a challenge that requires an appropriate response. If the caller supplies proper credentials, the logon is validated and the WAN link is established. The most important feature of CHAP is that passwords are never sent over the line.

## **Digi SureLink™**

Unique feature of Digi's cellular gateway products that provides an "always-on" connection to help mitigate connection losses due to factors such as RF signal loss and termination of inactive user/data sessions by wireless carriers. A programmable "inactivity timer" and a pro-active link integrity function are available. Digi SureLink now also includes link integrity monitoring with three testing options.

## **DHCP (Dynamic Host Configuration Protocol)**

Communications protocol that enables network administrators to centrally manage and automate the assignment of IP addresses.

## **Dynamic IP**

A type of IP address that is temporary and can change as frequently as every few hours.

## **EDGE (Enhanced Data Rates for Global Evolution)**

Technology that allows wireless devices to connect at data rates up to four times faster than existing GSM and GPRS wireless devices.

## **EV-DO (Evolution Data Only)**

A high-speed 3G wireless technology for CDMA networks.

## **freeKVM™**

In addition to serial console access to network equipment and computer systems, Digi console servers provide a method for gaining access to the graphical interface of computer systems on the network. This method, called **freeKVM**, allows users to specify a connection protocol and IP address to reach each targeted system. With the addition of **freeKVM**, Digi provides complete system access, including BIOS, OS and desktop applications, so users can concurrently manage multiple servers via a single interface without the cost, network overhead and synchronization penalties associated with KVM over IP solutions.

## **FTP (File Transfer Protocol)**

A protocol used to transfer files over a TCP/IP network (like the Internet).

## **GPRS (General Packet Radio System)**

A standard for cellular data communications that runs at speeds up to 85 Kbps. GPRS, which supports a wide range of bandwidths, is an efficient use of limited bandwidth and is particularly suited for sending and receiving small bursts of data, such as email and web browsing, as well as large volumes of data.

## **GRE (Generic Router Encapsulation)**

A tunneling protocol for routers originally developed by Cisco.

## **GSM (Global System for Mobile Communications)**

One of the leading digital cellular systems. GSM uses narrowband TDMA, which allows eight simultaneous calls on the same radio frequency. GSM was first introduced in 1991. As of the end of 1997, GSM service was available in more than 100 countries and has become the de facto standard in Europe and Asia.

## **HTTP (Hypertext Transfer Protocol)**

Set of rules for exchanging files on the web. When the browser user enters file requests, the browser builds an HTTP request and sends it to the IP address indicated by the URL. The HTTP daemon in the destination server machine receives the request and, after any necessary processing, returns the requested file.

## **HTTPS (Hypertext Transfer Protocol Secure)**

Opens a secure hypertext transfer session with the specified site address. HTTPS is HTTP layered over the Secure Sockets Layer (SSL) protocol to provide secure data transfer between computers over the web using encrypted data streams. The successful use of the HTTPS protocol requires a secure server to handle the request.



## 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

Define the rules for serial/industrial device communication between Digi serial server and PLCs or other equipment with a serial port. The Digi One IAP supports the following serial protocols:

- Modbus RTU/ASCII
- Omron: FINS, CompoWay/F and Hostlink
- DF1 (full- and half-duplex)
- Custom/user-defined
- ASCII

## IPMI (Intelligent Platform Management Interface)

Intel-based specification for monitoring and controlling server hardware. Specifically, it is a standardized way to do such things as monitor system temperatures, remotely reboot a machine, read hardware event logs and redirect the serial console over a network connection. IPMI is enabled by a native BMC (Baseboard Management Controller), a small, independent computer running inside the server.

## IPsec (Internet Protocol Security Protocol)

Provides guaranteed per-packet authenticity and confidentiality between peers.

## IPv6

Next generation network protocol that addresses the need for expanded IP address capacity. It provides a 128-bit address field vs. a 32-bit address field for the current IPv4 standard. Besides enabling larger IP addresses, IPv6 facilitates more efficient data routing by standardizing packet header lengths as well as self-discovery of IP addresses. IPv6 support future-proofs your console server investment against the migration from IPv4 to IPv6 networks.

## Kerberos

Secure method for authenticating a request for a service in a computer network. Kerberos lets a user request an encrypted "ticket" from an authentication process that can then be used to request a particular service from a server. The user's password does not have to pass through the network. A version of Kerberos (client and server) can be downloaded from MIT or you can buy a commercial version.

## LDAP (Lightweight Directory Access Protocol)

Software protocol for enabling anyone to locate organizations, individuals, and other resources such as files and devices in a network, whether on the public Internet or on a corporate intranet. LDAP is a "lightweight" (smaller amount of code) version of Directory Access Protocol (DAP), which is part of X.500, a standard for directory services in a network. LDAP is lighter because in its initial version it did not include security features. LDAP originated at the University of Michigan and has been endorsed by at least 40 companies. Netscape includes it in its latest Communicator suite of products. Microsoft includes it as part of what it calls Active Directory in a number of products including Outlook Express. Novell's NetWare Directory Services interoperates with LDAP. Cisco also supports it in its networking products.

## MEI (Multi-Electrical Interface)

Digi term meaning the serial interface supports RS-232, -422 and -485.

## Modbus/TCP

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.

## Modem Emulation

Enables a networked Digi serial server to act as a modem to send and receive data over an IP network instead of a PSTN.

## Multi-Master

Ability for the Digi serial 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.

## PAP (Password Authentication Protocol)

Standards-based security protocol commonly used to verify remote access logons by mobile and remote users; it will authenticate the user. The PAP protocol transmits both the user ID and the password in the clear, making it possible for an eavesdropper to capture logon credentials. This information is sent to the target device upon initiation of the call. The target then validates the information in a central PAP database.

## Pass-Through Port

Second serial port on the Digi One IAP serial server enables a user to connect additional serial devices locally to a PC (or other serial device) without disconnecting the PLC from the Ethernet.



## **Perl**

Widely-used IT language optimized for scanning text files, extracting information from those files and printing records based on the extracted information. In a console management application, it allows administrators to write customized instructions to scan port logs for predefined data, extract that data from the log file and issue automatic alerts when the pre-defined data is identified.

## **PCMCIA**

### **(Personal Computer Memory Card International Association)**

A PCMCIA card is a credit card-size memory or I/O device that connects to a personal computer, usually a notebook or laptop computer. Probably the most common example of a PCMCIA card is the 28.8 Kbps modem for notebook computers. The PCMCIA was organized in 1989 to promote standards for both memory and I/O integrated circuit cards. The PCMCIA 2.1 Standard was published in 1993. As a result, PC users can be assured of standard attachments for any peripheral device that follows the standard. The initial standard and its subsequent releases describe a standard product, the PC Card. A PCMCIA card has a 68-pin connector that connects into a slot in the PC.

## **PPP (Point-to-Point Protocol)**

Protocol for communication between two computers using a serial interface, typically a personal computer connected by phone line to a server. For example, your Internet service provider may supply you with a PPP connection so that the provider's servers pass your requests on to the Internet and forward the responses back to you. PPP uses IP and is designed to handle others.

## **Port Buffering/Port Logging**

Port buffering allows data from each port to be captured and stored within the console management appliance to allow a future examination of the events that occurred on a specific port prior to an alarm or failure. Port logging saves buffer contents to network drives for review and analysis.

## **Powered Ethernet**

Device power provided by the Ethernet connection (802.3af) eliminates the need for a separate power supply.

## **Private IP Address**

A type of IP address that is not routed over the public Internet. Access to a private IP is done only by other devices that are also on the private network.

## **Public IP Address**

A type of IP address that is routed over the public Internet. Access to a public IP can be made by any device on a private or public network.

## **RADIUS (Remote Authentication Dial-In User Service)**

Allows remote access to a central server system and authenticates dial-in users. Allows increased security for remote access connections. When the PortServer uses a RADIUS server, it authenticates users by first searching its own user table and then, if the user is not found, searching the RADIUS server.

## **RARP (Reverse Address Resolution Protocol)**

Protocol by which a physical machine in a Local Area Network can request to learn its IP address from a gateway server's Address Resolution Protocol table or cache. A network administrator creates a table in a local area network's gateway router that maps the physical machine or Media Access Control (MAC) addresses to corresponding Internet Protocol addresses.

## **RealPort®**

Patented Digi software application provides local serial port functionality (Real TTY for UNIX and Native COM port functionality for Microsoft environments).

## **RealPort® USB (USB Over IP®)**

Patented Digi software application provides local USB port functionality over an IP network.

## **RealPort® with Encryption**

Patent-pending technology takes RealPort a step further by offering a secure connection between the COM/TTY port and a serial server. TCP/IP packets are encapsulated in an SSL connection and encrypted via AES to prevent data snooping across the network.

## **RFC 2217**

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.

## **RS-232 (EIA-232)**

Also known as V.24. Most commonly used serial data communications standard for low speed communications. Defines the electrical characteristics and physical interface for serial data communications using unbalanced signals including flow control. Supports speeds of 150 Kbps and higher, with cable distances typically 150 feet or less.

## **RS-422 (EIA-422)**

Also known as V.11. Defines electrical characteristics for balanced serial signals. Does not define the physical interface. Supports greater distances (to 1000 feet) and noise immunity than RS-232.

## **RS-485 (EIA-485)**

Derived from RS-422 and has same distance and noise immunity support; utilizes tri-state line drivers to support multi-drop configuration in both 4- and 2-wire (full- and half-duplex) modes.

**SPP (Serial Port Profile)**

Software protocol supporting transfer of serial port data over Bluetooth® wireless.

**SNMP (Simple Network Management Protocol)**

Protocol governing network management and the monitoring of network devices and their functions. Included in the SNMP model are Network Management Stations (applications that enable administrators to control and monitor network entities) and Management Agents (components on actual network devices which send information to the Network Management Stations). Management Information Bases provide information about the managed objects (such as the data rate of an interface) and can be set or monitored using NMS.

**SSH (Secure Shell)**

UNIX-based command interface and protocol for securely getting access to a remote computer. It is widely used by network administrators to control web and other kinds of servers remotely. SSH commands are encrypted and secure in several ways. Both ends of the client/server connection are authenticated using a digital certificate, and encryption protects passwords.

**SSL (Secure Sockets Layer)**

Commonly used protocol for managing the security of a message transmission on the Internet. SSL ensures that the connection is private and secure by providing authentication and encryption services.

**SIM (Subscriber Identity Module)**

A smart card, used by GSM/GPRS devices, that securely stores the key identifying a mobile subscriber.

**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 serial server can act as client and a software application as a server, and vice versa.

**Static IP**

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.

**TCP/IP**

A group of protocols that defines how computers transmit and route data packets over the Internet.

**Telnet/Reverse Telnet**

The initiation of a telnet session from a computer system to one of its remote users/clients. Sometimes called direct telnet. A user/client who wishes to access a remote system initiates a telnet session to the networking systems. 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's 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.

**USB PlusPower**

Powered USB technology that provides device power over the USB bus for 5V, 12V or 24V peripheral devices.

**VPN (Virtual Private Network)**

A private communications network that utilizes dedicated equipment and data encryption to securely connect remote sites or users together over the public Internet.

**Zero-Client**

An I/O redirector device that allows a full cluster of peripheral devices to be deployed at the desired point of service without a dedicated PC or thin client at the same location and without requiring modifications to existing software applications.

**ZigBee®**

Wireless protocols that utilize small, low-power radios based on the IEEE 802.15.4 standard to create Wireless Personal Area Networks (WPANs). ZigBee devices are designed for use in embedded applications that require low-cost, low-power wireless monitoring and controlling of electronic devices.



# Part Numbers :: North America & International

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70001167	70001168	AccelePort C/X Universal PCI (3.3V & 5V) 16-Port RS-232 RJ-45 Concentrator	149
70001171	70001172	AccelePort C/X Universal PCI (3.3V & 5V) 8-Port RS-232 RJ-45 Concentrator	149
70001175	70001176	AccelePort C/X Universal PCI (3.3V & 5V) 16-Port RS-232 RJ-45 1U Rack	149
70001193	70001193	AccelePort Xr Universal PCI (3.3V & 5V) 4-Port RS-422 w/DB-25M Cable	147
70001194	70001194	AccelePort Xr Universal PCI (3.3V & 5V) 4-Port RS-422 w/DB-9F Cable	147
70001199	70001199	AccelePort Xr Universal PCI (3.3V & 5V) 8-Port RS-422 w/DB-25M Cable	147
70001200	70001200	AccelePort Xr Universal PCI (3.3V & 5V) 8-Port RS-422 w/DB-9F Cable	147
70001201	70001201	AccelePort Xem Universal PCI (3.3V & 5V) 16-Port RS-232 RJ-45 Concentrator	151
70001203	70001203	AccelePort Xem Universal PCI (3.3V & 5V) 16-Port RS-232 DB-25 Concentrator	151
70001206	70001206	AccelePort Xem Universal PCI (3.3V & 5V) 8-Port RS-232 RJ-45 Concentrator	151
70001208	70001208	AccelePort Xem Universal PCI (3.3V & 5V) 8-Port RS-232 DB-25 Concentrator	151
70001229	70001230	AccelePort C/X Universal PCI (3.3V & 5V) 8-Port RS-232 DB-25 Concentrator	149
70001231	70001232	AccelePort C/X Universal PCI (3.3V & 5V) 16-Port RS-232 DB-25 Concentrator	149
70001361	70001361	AccelePort Xr 920 Universal PCI (3.3V & 5V) 4-Port RS-232 w/DB-25M Cable	147
70001362	70001362	AccelePort Xr 920 Universal PCI (3.3V & 5V) 8-Port RS-232 w/DB-25M Cable	147
70001385	70001385	AccelePort C/CON RS/6000 Compatibility Upgrade Kit (for 16-port C/CON only)	149, 162
70001427	70001528	EtherLite 160 – 16 ports, RS-232, RJ-45	37
70001428	70001529	EtherLite 162 – 16 ports, RS-422, RJ-45	37
70001429	70001533	EtherLite 32 – 32 ports, RS-232, RJ-45	37
70001430	70001531	EtherLite 2 – 2 ports, RS-232, RJ-45	37
70001432	70001532	EtherLite 2 – 2 ports, RS-422, RJ-45	37
70001548	70001548	AccelePort Xp Universal PCI (3.3V & 5V) 8-Port RS-232 w/DB-25 Cable	145
70001549	70001549	AccelePort Xp Universal PCI (3.3V & 5V) 4-Port RS-232 w/DB-25 Cable	145
70001550	70001550	AccelePort Xp Universal PCI (3.3V & 5V) 16-Port RS-232 w/DB-25 Rack	145
70001557	70001557	AccelePort Xp Universal PCI (3.3V & 5V) 16-Port RS-232 w/RJ-45 Rack	145
70001559	70001559	AccelePort Xem Universal PCI (3.3V & 5V) 16-Port RS-422 DB-25 Concentrator	151
70001683	70001706	EtherLite 2 – 2 ports, RS-485, RJ-45	37
70001733	70001738	PortServer TS 16 – 16 ports, RS-232	36
70001734	70001741	PortServer TS 8 – 8 ports, RS-232	36
70001742	70001743	PortServer TS 16 Rack – 16 ports, RS-232, DC power, 19"/23" rack mountable	36
70001747	70001747	PortServer TS 16, 48VDC – 16 ports, RS-232	36
70001757	70001757	AccelePort Xem Universal PCI (3.3V & 5V) 16-Port RS-232 RJ-45 1U 19" Rack	151
70001767	70001768	EtherLite 80 – 8 ports, RS-232, RJ-45	37
70001777	70001777	Digi One IAP	32
70001805	70001832	PortServer TS 1 MEI – 1 port	20
70001806	70001833	PortServer TS 2 MEI – 2 ports	20
70001807	70001834	PortServer TS 4 MEI – 4 ports	20
70001851	70001852	Digi One SP – 1 port	27
70001862	70001862	Digi One IA – 1 port	34
70001877	70001877	EtherLite 160 - 16 ports, RS-232, 48VDC, RJ-45	37
70001885	70001885	PortServer TS 8, 48VDC – 8 ports, RS-232, DC power	36
70001898	70001985	PortServer TS 1 M MEI – 1 port	25
70001899	70001986	PortServer TS 3 M MEI – 3 ports	25
70001908	70001909	Digi CM 32	89
70001910	70001911	Digi CM 16	89
70001917	70001917	PortServer TS 1 H MEI – 1 port	21
70001918	70001918	PortServer TS 2 H MEI – 2 ports	21
70001919	70001919	PortServer TS 4 H MEI – 4 ports	21
70001928	70001929	PortServer TS 16 Enterprise Rack – 16 ports, RS-232, 19" rack mountable	36

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70001931	70001932	Digi CM 8	89
70001937	70001937	Digi CM 32 - 48VDC	89
70001938	70001938	Digi CM 16 - 48VDC	89
70001946	70001946	Digi Neo Universal PCI (3.3V & 5V) 4-Port w/DB-25M Fan-Out Cables	153
70001947	70001947	Digi Neo Universal PCI (3.3V & 5V) 8-Port w/DB-25M Fan-out Cables	153
70001949	70001950	Digi CM 48	89
70001951	70001952	Digi CM 48 – Dual AC	89
70001953	70001953	Digi CM 48 – 48VDC	89
70001954	70001955	PortServer TS 1 W MEI – 1 port	24
70001956	70001957	PortServer TS 2 W MEI – 2 ports	24
70001958	70001959	PortServer TS 4 W MEI – 4 ports	24
70001965	70001965	Digi Neo Universal PCI (3.3V & 5V) Low Profile w/2-Port DB-9M Fan-Out Cable	153
70001978	70001980	PortServer TS 16 MEI – 16 ports, RS-232/422/485, 19” rack mountable	36
70001979	70001981	PortServer TS 8 MEI – 8 ports, RS-232/422/485, 19” rack mountable	36
70001988	70001991	PortServer TS 1 P MEI – 1 port (mid-span PoE)	26
70001989	70001992	PortServer TS 2 P MEI – 2 ports (mid-span PoE)	26
70001990	70001993	PortServer TS 4 P MEI – 4 ports (mid-span PoE)	26
70001999	70002000	Digi One SP IA – 1 port	35
70002004	N/A	Digi RPM 8 – 1U, 8 outlets, 120VAC, 16A	90
N/A	70002005	Digi RPM 8 – 1U, 8 outlets, 240VAC, 16A	90
70002006	N/A	Digi RPM 10 – 0U, 10 outlets, 120VAC, 20A	90
N/A	70002007	Digi RPM 10 – 0U, 10 outlets, 240VAC, 20A	90
70002008	70002008	AccelePort Xem Universal PCI (3.3V & 5V) Low Profile 8-Port RS-232 w/DB-25 Concentrator	151
70002009	70002009	AccelePort Xem Universal PCI (3.3V & 5V) Low Profile 8-Port RS-232 w/RJ-45 Concentrator	151
70002010	70002010	AccelePort Xem Universal PCI (3.3V & 5V) Low Profile 16-Port RS-232 w/DB-25 Concentrator	151
70002011	70002011	AccelePort Xem Universal PCI (3.3V & 5V) Low Profile 16-Port RS-232 w/RJ-45 Concentrator	151
70002012	70002012	AccelePort Xem Universal PCI (3.3V & 5V) Low Profile 16-Port RS-232 w/RJ-45 1U Rack	151
70002017	70002017	AccelePort Xem Universal PCI (3.3V & 5V) Low Profile 16-Port RS-422 w/DB-25 Concentrator	151
70002034	70002034	Digi CM 8 – 48VDC	89
70002038	70002038	PortServer TS 1 Hcc MEI – 1 port	22
70002039	70002039	PortServer TS 2 Hcc MEI – 2 ports	22
70002040	70002040	PortServer TS 4 Hcc MEI – 4 ports	22
70002041	70002041	PortServer TS 1 – 2 port	19
70002043	70002044	PortServer TS 2 – 2 ports	19
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70002314	N/A	PortServer TS 1 P MEI – 1 port (end-/mid-span PoE)	26
70002315	N/A	PortServer TS 2 P MEI – 2 ports (end-/mid-span PoE)	26
70002316	N/A	PortServer TS 4 P MEI – 4 ports (end-/mid-span PoE)	26
70002318	70002318	PortServer TS 1 Haz MEI – 1 port	23
70002319	70002319	PortServer TS 2 Haz MEI – 2 ports	23
70002320	70002320	PortServer TS 4 Haz MEI – 4 ports	23
70002326	70002326	Digi One IAP Haz – 1 port	33
76000001	76000001	4-Port DB-9F Straight Fan-Out Cable	163
76000002	76000002	4-Port RS-422 DB-9F Fan-Out Cable – AccelePort Xr, ClassicBoard	155, 163
76000003	76000003	4-Port DB-9M Straight Fan-Out Cable	147, 155, 163
76000004	76000004	4-Port RS-422 DB-9M Fan-Out Cable – AccelePort Xr, ClassicBoard	155, 163
76000006	76000006	4-Port DB-25F Straight Fan-Out Cable	147, 155, 163
76000008	76000008	4-Port DB-25M Straight Fan-Out Cable	147, 155, 163
76000014	76000014	8-Port RS-422 DB-9F Fan-Out Cable – AccelePort Xr, ClassicBoard	155, 163
76000017	76000017	8-Port RS-422 DB-9M Fan-Out Cable – AccelePort Xr, ClassicBoard	155, 163
76000019	76000019	8-Port DB-25F Straight Fan-Out Cable	147, 155, 163
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76000026	76000026	4-Port DB-25F Straight Connector Box	163
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76000071	76000107	AccelePort C/X Fiber Link Adapter	149, 162
76000073	76000073	Digi PORTS/Xem 16-Port RS-232 DB-25 Concentrator	151
76000074	76000074	Digi PORTS/Xem 16-Port RS-232 RJ-45 Concentrator	151
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301-9029-01	301-9029-01	Watchport Console Extra License – For additional Console connections	135, 138
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CC-ACC-LCDQ-57	CC-ACC-LCDQ-57	ConnectCore LCD Add-On Kit w/5.7" QVGA and Touchscreen	66, 67
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CC-7U-Z113	CC-7U-Z113	ConnectCore 7U Module w/8 MB Flash and 16 MB RAM, for NET+OS Development	52
CC-9C-CE6	CC-9C-CE6	ConnectCore 9C Digi JumpStart Kit for Windows CE 6.x	66
CC-9C-LX	CC-9C-LX	ConnectCore 9C Digi JumpStart Kit for Linux	66
CC-9C-NET	CC-9C-NET	ConnectCore 9C Digi JumpStart Kit for NET+OS 7	66
CC-9C-V212-Z1	CC-9C-V212-Z1	ConnectCore 9C w/4 MB Flash, 16 MB SDRAM, No On-Module Connectors	53
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CP-DIS-M22	CP-DIS-M22-W	ConnectPort Display - 2 USB, 2 serial, 1 high resolution VGA	96
CP-WAN-A300	CP-WAN-A300-W	ConnectPort WAN VPN - Intended for PC cards; no PC card included	125
CP-WAN-B301-A	N/A	ConnectPort WAN VPN HSDPA (Generic) – Antenna included	125
CP-WAN-B302	CP-WAN-B309-W	ConnectPort WAN VPN HSDPA - Embedded 3.6 HSDPA PCI Express 8775 module	125
CP-WAN-B302-A	N/A	ConnectPort WAN VPN HSDPA (Cingular/ATT) – Antenna included	125
CP-WAN-B310	N/A	ConnectPort WAN VPN EV-DO Rev A (Sprint) – Embedded PCI Express Sprint 5725 module	125
CP-WAN-B310-A	N/A	ConnectPort WAN VPN EVDO Rev A (Sprint) – Embedded PCI Express Sprint 5725 module; 2 antennas included	125
CP-WAN-B311-A	N/A	ConnectPort WAN VPN EV-DO Rev A (Verizon Wireless) – Embedded PCI Express Verizon 5725 module w/2 antennas	125
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CW-LICX-25	CW-LICX-25	Digi Connectware Manager License 24x7 25 – 25 device standard license pack. Includes one year 24x7 support and software updates.	130
CW-SUB-25	CW-SUB-25	Digi Connectware Manager Renewal Subscription – 25 device annual subscription w/business hour support and software updates	130
CW-SUBX-25	CW-SUBX-25	Digi Connectware Manager Renewal Subscription 24x7 25 – 25 device annual subscription w/24x7 support and software updates.	130
DC-ANT-DBDP3	DC-ANT-DBDP3	Dual Band Wireless Dipole Antenna 7" – Up to 3 dbi gain	123, 160
DC-ANT-DBDP3-25	DC-ANT-DBDP3-25	Dual Band Wireless Dipole Antenna 7" (25-unit pack)	160
DC-ANT-DBDT	DC-ANT-DBDT	Dual Band Wireless Desktop 2.8" Antenna w/8-ft Cable	123, 160
DC-ANT-DBHG	DC-ANT-DBHG	Dual Band Wireless Hi-Gain Antenna 14" – Up to 4 dbi gain	123, 160
DC-ANT-DBHG-25	DC-ANT-DBHG-25	Dual Band Wireless Hi-Gain Antenna 14" (25-unit pack)	160

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DC-ANT-DBMP	DC-ANT-DBMP-W	Dual Band Wireless Monopole Antenna 2" – Up to 0.8 dbi gain	123, 160
DC-ANT-DBMP-25	DC-ANT-DBMP-W-25	Dual Band Wireless Monopole Antenna 2" – Up to 0.8 dbi gain (25-unit pack)	160
DC-BKT-CWAN	DC-BKT-CWAN	Wall Mount Bracket w/Power Cord Holder - Digi Connect WAN family	160
DC-EM-NET	DC-EM-NET	Digi Connect EM Digi JumpStart Kit for NET+OS 7	64
DC-EM-02T-C	DC-EM-02T-C	Digi Connect EM w/LED array and RJ-45 connector (single-unit pack)	51
DC-EM-02T-C-25	DC-EM-02T-C-25	Digi Connect EM w/LED array and RJ-45 connector (25-unit pack)	51
DC-EM-02T-KT	DC-EM-02T-KT	Digi Connect EM Integration Kit	63
DC-EM-02T-NC	DC-EM-02T-NC	Digi Connect EM w/pin headers (single-unit pack)	51
DC-EM-02T-NC-25	DC-EM-02T-NC-25	Digi Connect EM w/pin headers (25-unit pack)	51
DC-EM-02T-NS	DC-EM-02T-NS	Digi Connect EM w/pin headers (single-unit pack)	51
DC-EM-02T-NS-25	DC-EM-02T-NS-25	Digi Connect EM w/pin headers (25-unit pack)	51
DC-EM-02T-S	DC-EM-02T-S	Digi Connect EM w/LED array and RJ-45 connector (single-unit pack)	51
DC-EM-02T-S-25	DC-EM-02T-S-25	Digi Connect EM w/LED array and RJ-45 connector (25-unit pack)	51
DC-ES-4	DC-ES-4-EU	Digi Connect ES 4 – 4 ports	38
DC-ES-8	DC-ES-8-EU	Digi Connect ES 8 – 8 ports	38
DC-ES-8-SW	DC-ES-8-SW-EU	Digi Connect ES 8 w/Ethernet Switch – 8 ports	38
DC-ES-16	DC-ES-16-EU	Digi Connect ES 16 – 16 ports	38
DC-ES-16-SW	DC-ES-16-SW-EU	Digi Connect ES 16 w/Ethernet Switch - 16 ports	38
DC-ES-BKT	DC-ES-BKT	Digi Connect ES VESA Mounting Bracket	38, 159
DC-ME-NET	DC-ME-NET	Digi Connect ME Digi JumpStart Kit for NET+OS	64
DC-ME-01T-C	DC-ME-01T-C	Digi Connect ME w/2 MB Flash, 8 MB RAM (single-unit pack)	49
DC-ME-01T-C-10	DC-ME-01T-C-10	Digi Connect ME w/2 MB Flash, 8 MB RAM (10-unit pack)	49
DC-ME-01T-C-50	DC-ME-01T-C-50	Digi Connect ME w/2 MB Flash, 8 MB RAM (50-unit pack)	49
DC-ME-01T-KT	DC-ME-01T-KT	Digi Connect ME Integration Kit	63
DC-ME-01T-S	DC-ME-01T-S	Digi Connect ME w/2 MB Flash, 8 MB RAM (single-unit pack)	49
DC-ME-01T-S-10	DC-ME-01T-S-10	Digi Connect ME w/2 MB Flash, 8 MB RAM (10-unit pack)	49
DC-ME-01T-S-50	DC-ME-01T-S-50	Digi Connect ME w/2 MB Flash, 8 MB RAM (50-unit pack)	49
DC-ME-01T-MF2-VS	DC-ME-01T-MF2-VS	Digi Connect ME w/8 MB SDRAM, 2 MB Flash, for .NET Micro Framework for development use w/Visual Studio (single-unit pack)	49
DC-ME-01T-MF2	DC-ME-01T-MF2	Digi Connect ME w/8MB SDRAM, 2 MB Flash, for .NET Micro Framework (single-unit pack)	49
DC-ME-01T-MF2-10	DC-ME-01T-MF2-10	Digi Connect ME w/8 MB SDRAM, 2 MB Flash, .NET Micro Framework (10-unit pack)	49
DC-ME-01T-MF2-50	DC-ME-01T-MF2-50	Digi Connect ME w/8 MB SDRAM, 2 MB Flash, .NET Micro Framework (50-unit pack)	49
DC-ME4-01T-C	DC-ME4-01T-C	Digi Connect ME w/4 MB Flash, 8 MB RAM (single-unit pack)	49
DC-ME4-01T-C-10	DC-ME4-01T-C-10	Digi Connect ME w/4 MB Flash, 8 MB RAM (10-unit pack)	49
DC-ME4-01T-C-50	DC-ME4-01T-C-10	Digi Connect ME w/4 MB Flash, 8 MB RAM (50-unit pack)	49
DC-N2S-170-S	DC-N2S-170-S	Digi Connect N2S-170 Card (single-pack)	31
DC-N2S-170-S-10	DC-N2S-170-S-10	Digi Connect N2S-170 Card (10-unit bulk pack)	31
DC-SP-NET	DC-SP-NET	Digi Connect SP Digi JumpStart Kit for NET+OS 7	64
DC-SP-01-C	DC-SP-01-C-W	Digi Connect SP (Single-unit w/power supply)	29
DC-SP-01-C-25	DC-SP-01-C-W-25	Digi Connect SP (25-unit pack w/power supply)	29
DC-SP-01-GN	DC-SP-01-GN	Digi Connect SP Development Kit (GNU)	29
DC-SP-01-S	DC-SP-01-S-W	Digi Connect SP, RS-232/422/485 (Single unit w/power supply)	29
DC-SP-01-S-25	DC-SP-01-S-W-25	Digi Connect SP, RS-232/422/485 - Bulk (25-unit pack w/power supplies)	29
DC-SP-01R-C	DC-SP-01R-C-W	Digi Connect SP, RS-232 Only (Single unit w/power supply)	29
DC-SP-01R-C-25	DC-SP-01R-C-W-25	Digi Connect SP, RS-232 Only - Bulk (25-unit pack w/power supplies)	29
DC-VPN-C1XA	N/A	Digi Connect WAN VPN CDMA w/Antenna - Centennial	123
DC-VPN-GE10A	N/A	Digi Connect WAN VPN GSM Global Quadband GPRS Class 12, EDGE Class 10 w/Antenna	123
DC-VPN-S1XA	DC-VPN-S1XA-W	Digi Connect WAN VPN CDMA w/Antenna – Sprint	123
DC-WAN-D111	N/A	Digi Connect WAN CDMA w/Antenna – Verizon	123

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DC-WAN-D112	N/A	Digi Connect WAN CDMA w/Antenna – Centennial	123
DC-WAN-D311	N/A	Digi Connect WAN VPN CDMA w/Antenna – Verizon	123
DC-WAN-D318	N/A	Digi Connect WAN VPN CDMA w/Antenna – Bell Mobility	123
DC-WAN-F501	DC-WAN-F501	Digi Connect WAN IA GSM Class 10 EDGE Class 12 GPRS Industrial Cellular Router w/Antenna (no power supply)	123
DC-WAN-G510	N/A	Digi Connect WAN IA CDMA 1xRTT Sprint Industrial Cellular Router w/Antenna (no power supply)	123
DC-WAN-G511	N/A	Digi Connect WAN IA CDMA 1xRTT Verizon Industrial Cellular Router w/Antenna (no power supply)	123
DC-WAN-G518	N/A	Digi Connect WAN IA CDMA 1xRTT Bell Mobility Industrial Cellular Router w/Antenna (no power supply)	123
DC-WAN-GE10A	DC-WAN-GE10A-W	Digi Connect WAN VPN GSM Global Quadband GPRS Class 12, EDGE Class 10 w/Antenna	123
DC-WAN-K401	N/A	Digi Connect WAN Sync GSM	123
DC-WAN-M410	N/A	Digi Connect WAN Sync CDMA 1xRTT – Sprint	123
DC-WAN-S1XA	N/A	Digi Connect WAN CDMA w/Antenna – Sprint	123
DC-WEM-NET	DC-WEM-NET	Digi Connect Wi-EM Digi JumpStart Kit for NET+OS 7	64
DC-WEM-02T-C	DC-WEM-02T-C	Digi Connect Wi-EM-C w/LED Array (single-unit pack w/o antennas)	51
DC-WEM-02T-C-25	DC-WEM-02T-C-25	Digi Connect Wi-EM w/LED Array (25-unit pack w/o antennas)	51
DC-WEM-02T-KT	DC-WEM-02T-KT	Digi Connect Wi-EM Integration Kit	63
DC-WEM-02T-NC	DC-WEM-02T-NC	Digi Connect Wi-EM-C w/Pin Headers (single-unit pack w/o antennas)	51
DC-WEM-02T-NC-25	DC-WEM-02T-NC-25	Digi Connect Wi-EM w/Pin Headers (25-unit pack w/o antennas)	51
DC-WEM-02T-S	DC-WEM-02T-S	Digi Connect Wi-EM-S w/LED Array (single-unit pack w/o antennas)	51
DC-WEM-02T-S-25	DC-WEM-02T-S-25	Digi Connect Wi-EM w/LED Array (25-unit pack w/o antennas)	51
DC-WME-NET	DC-WME-NET	Digi Connect Wi-ME Digi JumpStart Kit for NET+OS 7	64
DC-WME-01T-C	DC-WME-01T-C	Digi Connect Wi-ME-C (single-unit pack w/antenna)	49
DC-WME-01T-C-10	DC-WME-01T-C-10	Digi Connect Wi-ME (10-unit pack w/antennas)	49
DC-WME-01T-C-50	DC-WME-01T-C-50	Digi Connect Wi-ME (50-unit pack w/antennas)	49
DC-WME-01T-KT	DC-WME-01T-KT	Digi Connect Wi-ME Integration Kit	63
DC-WME-01T-S	DC-WME-01T-S	Digi Connect Wi-ME-S (single-unit pack w/antenna)	49
DC-WME-01T-S-10	DC-WME-01T-S-10	Digi Connect Wi-ME (10-unit pack w/antennas)	49
DC-WME-01T-S-50	DC-WME-01T-S-50	Digi Connect Wi-ME (50-unit pack w/antennas)	49
DC-WSP-NET	DC-WSP-NET	Digi Connect Wi-SP Digi JumpStart Kit for NET+OS	64
DC-WSP-01-S	DC-WSP-01-S-W	Digi Connect Wi-SP (single-unit pack w/power supply and dipole antenna)	30
DC-WSP-01-S-25	DC-WSP-01-S-W-25	Digi Connect Wi-SP (25-unit pack w/power supplies and dipole antennas)	30
DG-ANT-20DB-BG-B	DG-ANT-20DB-BG-B	RP-SMA 2.4 GHz Dipole Antenna – 2 dBi gain (single-pack)	165
DG-ANT-20DP-BG	DG-ANT-20DP-BG	Antenna - RP-SMA 2.4 GHz Dipole w/2dBi gain single pack	165
DG-ANT-50DP-AG	DG-ANT-50DP-AG	RP-SMA 2.4/5 GHz Dipole Antenna – 5 dBi gain (single-pack)*	165
DG-ANT-50DP-AG-B	DG-ANT-50DP-AG-B	RP-SMA 2.4/5 GHz Dipole Antenna – 5 dBi gain (25-pack)*	165
DG-ESUP-ESS	DG-ESUP-ESS	Essential Support Plan (embedded modules only)	78
DG-ESUP-PRM	DG-ESUP-PRM	Premium Support Plan	78
DG-EXT-300-RR	DG-EXT-300-RR	RP-SMA Dipole Extension Cable w/Bulkhead Connector, 300 mm (single-pack)	165
DG-EXT-300-RR-B	DG-EXT-300-RR-B	RP-SMA Dipole Extension Cable w/Bulkhead Connector, 300 mm (25-pack)	165
FS-352	FS-352	ConnectCore 7U w/8 MB Flash and 16 MB RAM, for Linux development	52
FS-355	FS-355	ConnectCore 7U w/2 MB Flash and 16 MB RAM, for Linux Development	52
FS-372	FS-372	ConnectCore 9M 2440 Module w/32 MB SDRAM 32 MB Flash, 10 Mbps Ethernet	55
FS-373	FS-373	ConnectCore 9U w/16 MB Flash and 32 MB RAM	52
FS-377	FS-377	ConnectCore XP 270 (520 MHz, 32 MB StrataFlash, 64 MB SDRAM)	56
FS-385	FS-385	ConnectCore 9M 2440 Module w/128 MB SDRAM 128 MB Flash, 10 Mbps Ethernet	55
FS-3003	FS-3003	ConnectCore 9M 2440 Module w/128 MB SDRAM 128 MB Flash, no Ethernet	55

\*Not approved for Digi Connect Wi-ME/Wi-EM.

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FS-3006	FS-3006	ConnectCore 9M 2440 Module w/64 MB SDRAM 64 MB Flash, 10 Mbps Ethernet	55
FS-3007	FS-3007	ConnectCore 9M 2440 Module w/32 MB SDRAM 32 MB Flash, no Ethernet	55
FS-7700	FS-7700	Hardware Design Review - Module-Based	77
FS-7701	FS-7701	LCD Device Driver - Microsoft Windows CE	77
FS-7702	FS-7702	LCD Device Driver - Digi Embedded Linux	77
FS-7705	FS-7705	Bootloader Modifications - Linux	77
FS-7706	FS-7706	Bootloader Modifications - Windows CE	77
FS-7707	FS-7707	Board Bring-up - Linux	77
FS-7708	FS-7708	Board Bring-up - Windows CE	77
FS-9071	FS-9071	ConnectCore 9M Development Kit for Linux	68
FS-9077	FS-9077	ConnectCore XP Development Kit for Linux	69
FS-9090	FS-9090	ConnectCore XP Development Kit for Microsoft Windows CE 5.0	69
FS-9093	FS-9093	ConnectCore 9M Development Kit for Microsoft Windows CE 5.0	68
NET+50-BIT	NET+50-BIT	NET+50 - For NET+OS Operating System (BGA)	81
NET+50-QIT-3	NET+50-QIT-3	NET+50 - For NET+OS Operating System (PQFP)	81
NET+50-BINP	NET+50-BINP	NET+50 - W/pSOS License (BGA)	81
NET+50-QINP-3	NET+50-QINP-3	NET+50 - W/pSOS License (PQFP)	81
NET+50-BIN	NET+50-BIN	NET+50 - For No Operating System (BGA)	81
NET+50-QIN-3	NET+50-QIN-3	NET+50 - For No Operating System (PQFP)	81
NS7520B-1-C36	NS7520B-1-C36	NS7520 - 36 MHz, 0° C to 70° C	81
NS7520B-1-I46	NS7520B-1-I46	NS7520 - 46 MHz, -40° C to 85° C	81
NS7520B-1-C55	NS7520B-1-C55	NS7520 - 55 MHz, 0° C to 70° C	81
NS7520B-1-I55	NS7520B-1-I55	NS7520 - 55 MHz, -40° C to 85° C	81
NS9210B-0-I75	NS9210B-0-I75	NS9210 - 75 MHz, -40° C to 85° C	81
NS9210B-0-I150	NS9210B-0-I150	NS9210 - 150 MHz, -40° C to 85° C	81
NS9215B-0-I75	NS9215B-0-I75	NS9215 - 75 MHz, -40° C to 85° C	81
NS9215B-0-I150	NS9215B-0-I150	NS9215 - 150 MHz, -40° C to 85° C	81
NS9360B-0-C103	NS9360B-0-C103	NS9360 - 103 MHz, 0° C to 70° C	81
NS9360B-0-I155	NS9360B-0-I155	NS9360 - 155 MHz, -40° C to 85° C	81
NS9360B-0-C177	NS9360B-0-C177	NS9360 - 177 MHz, 0° C to 70° C	81
NS9750B-A1-C125	NS9750B-A1-C125	NS9750 - 125 MHz, 0° C to 70° C	81
NS9750B-A1-I162	S9750B-A1-I162	NS9750 - 162 MHz, -40° C to 85° C	81
NS9750B-A1-C200	NS9750B-A1-C200	NS9750 - 200 MHz, 0° C to 70° C	81
NS9750B-0-C125	NS9750B-0-C125	NS9775 - 125 MHz, 0° C to 70° C	81
NS9750B-0-I162	NS9750B-0-I162	NS9775 - 162 MHz, -40° C to 85° C	81
NS9750B-0-C200	NS9750B-0-C200	NS9775 - 200 MHz, 0° C to 70° C	81
NSHWREVIEW	NSHWREVIEW	Hardware Design Review - Microprocessor-Based	77
X09-009-DK	X09-009-DK	XStream Development Kit - 915MHz, 100mW, 9600 baud, 3" wire & RPSMA connector	71
X09-009NMC	X09-009NMC	9XStream Module - 100mW transceiver, w/MMCX, 9600 bps, commercial	61
X09-009NSC	X09-009NSC	9XStream Module - 100mW transceiver, w/RPSMA, 9600 bps, commercial	61
X09-009WNC	X09-009WNC	9XStream Module - 100mW transceiver, 3" wire antenna, 9600 bps, commercial	61
X09-019-DK	X09-019-DK	XStream Development Kit - 915MHz, 100mW, 19.2 Kbaud, 3" wire & RPSMA connector	71
X09-009PKI-R	XH9-009PKI-R*	XStream-PKG 900 MHz - 9600 baud, industrial, RS-232, no accessories	128
X09-009PKI-RA	XH9-009PKI-RA*	XStream-PKG 900 MHz - 9600 baud, industrial, RS-232	128
X09-019PKI-R	XH9-019PKI-R*	XStream-PKG 900 MHz - 19200 baud, industrial, RS-232, no accessories	128
X09-019PKI-RA	XH9-019PKI-RA*	XStream-PKG 900 MHz - 19200 baud, industrial, RS-232	8
X09-009PKC-U	N/A	XStream-PKG 900 MHz - 9600 baud, commercial, USB, no accessories	128

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RF Modems and OEM Modules listed as "Industrial" have an operating temp of -40° to 85° C.

\*Australia only.

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X09-009PKC-UA	N/A	XStream-PKG 900 MHz – 9600 baud, commercial, USB	128
X09-019PKC-U	N/A	XStream-PKG 900 MHz – 19200 baud, commercial, USB, no accessories	128
X09-019PKC-UA	N/A	XStream-PKG 900 MHz – 19200 baud, commercial, USB	128
X24-009-DK	X24-009-DK	XStream Development Kit – 2.4GHz, 50mW, 9600 baud, 3" wire & RPSMA connector	71
X24-019-DK	X24-019-DK	XStream Development Kit – 2.4GHz, 50mW, 19.2 Kbaud, 3" wire & RPSMA connector	71
X24-009PKI-R	X24-009PKI-R	XStream-PKG 2.4 GHz – 9600 baud, industrial, RS-232, no accessories	128
X24-009PKI-RA	X24-009PKI-RA	XStream-PKG 2.4GHz – 9600 baud, industrial, RS-232	128
X24-019PKI-R	X24-019PKI-R	XStream-PKG 2.4 GHz – 19200 baud, industrial, RS-232, no accessories	128
X24-019PKI-RA	X24-019PKI-RA	XStream-PKG 2.4 GHz – 19200 baud, industrial, RS-232	128
X24-009PKC-U	X24-009PKC-U	XStream-PKG 2.4 GHz – 9600 baud, commercial, USB, no accessories	128
X24-009PKC-UA	X24-009PKC-UA	XStream-PKG 2.4 GHz – 9600 baud, commercial, USB	128
X24-019PKC-U	X24-019PKC-U	XStream-PKG 2.4 GHz – 19200 baud, commercial, USB, no accessories	128
X24-019PKC-UA	X24-019PKC-UA	XStream-PKG 2.4 GHz – 19200 baud, commercial, USB	128
XB24-ACI-001	XB24-ACI-001	XBee Series 1 Module – 1mW, chip antenna, 250000 bps, industrial	59
XB24-AUI-001	XB24-AUI-001	XBee Series 1 Module – 1mW, U.FL ant connector, 250000 bps, industrial	59
XB24-AWI-001	XB24-AWI-001	XBee Series 1 Module – 1mW, wire antenna, 250000 bps, industrial	59
XB24-DKS	XB24-DKS-INT	XBee Starter Development Kit w/2 XBee Modules	70
XB24-PDK	XB24-PDK-INT	XBee Development Kit w/3 XBee and 2 XBee-PRO Modules	70
XBP24-ACI-001	XBP24-ACI-001	XBee-PRO Series 1 Module – 50mW, chip antenna, 250000 bps, industrial	59
N/A	XBP24-ACI-001J	XBee-PRO Series 1 Module – 50mW, chip antenna, 250000 bps, for Japan, industrial	59
XBP24-AUI-001	XBP24-AUI-001	XBee-PRO Series 1 Module – 50mW, U.FL ant connector, 250000 bps, industrial	59
N/A	XBP24-AUI-001J	XBee-PRO Series 1 Module – 50mW, U.FL ant connector, 250000 bps, for Japan, industrial	59
XBP24-AWI-001	XBP24-AWI-001	XBee-PRO Series 1 Module – 50mW, wire antenna, 250000 bps, industrial	59
N/A	XBP24-AWI-001J	XBee-PRO Series 1 Module – 50mW, wire antenna, 250000 bps, for Japan, industrial	59
XBP24-DKS	XBP24-DKS-INT	XBee-PRO Starter Development Kit w/2 XBee-PRO Modules	70
XC09-009-DK	XC09-009-DK	XCite Development Kit – 915MHz, 5mW, 9600 baud, 3" wire & RPSMA connector	71
XC09-009NSC	XC09-009NSC	9XCite Module – 4mW transceiver, w/RPSMA, 9600 bps, commercial	62
XC09-009NSI	XC09-009NSI	9XCite Module – 4mW transceiver, w/RPSMA, 9600 bps, industrial	62
XC09-009WNC	XC09-009WNC	9XCite Module – 4mW transceiver, 3" wire antenna, 9600 bps, commercial	62
XC09-009WNI	XC09-009WNI	9XCite Module – 4mW transceiver, 3" wire antenna, 9600 bps, industrial	62
XC09-038-DK	XC09-038-DK	XCite Development Kit – 915MHz, 5mW, 38.4kbps, 3" wire & RPSMA connector	71
XC09-038NSC	XC09-038NSC	9XCite Module – 4mW transceiver, w/RPSMA, 38400 bps, commercial	62
XC09-038NSI	XC09-038NSI	9XCite Module – 4mW transceiver, w/RPSMA, 38400 bps, industrial	62
XC09-038WNC	XC09-038WNC	9XCite Module – 4mW transceiver, 3" wire antenna, 38400 bps, commercial	62
XC09-038WNI	XC09-038WNI	9XCite Module – 4mW transceiver, 3" wire antenna, 38400 bps, industrial	62
XEB09-C	XEB09-C-AU*	XPress Ethernet Bridge (Commercial/Indoor)	129
XEB09-I	XEB09-I-AU*	XPress Ethernet Bridge (Industrial/Outdoor)	129
XT09-DK	XT09-DK-NA	XTend Development Kit – 915MHz, 1W, 115Kbps, (1) MMCX & (1) RPSMA connector, industrial	71
XT09-MI	XT09-MI-128	9XTend Module – 1W transceiver, w/MMCX connector, 115000 bps, industrial	60
XT09-MT	N/A	9XTend Module – 1W transceiver, w/RPSMA or MMCX connector, 115000 bps	60
XT09-PKI-RA	XT09-PKI-RA-128	XTend-PKG 900 MHz – Industrial, RS-232	127
XT09-PKI-R	XT09-PKI-R-128	XTend-PKG 900 MHz – Industrial, RS-232, no accessories	127
XT09-PKC-UA	XT09-PKC-UA-128	XTend-PKG 900 MHz – Commercial, USB	127
XT09-PKC-U	XT09-PKC-U-128	XTend-PKG 900 MHz – Commercial, USB, no accessories	127
XT09-PKI-RDA	N/A	XTend-PKG 900 MHz – Industrial, RS-232, Class 1/Division 2	127
XT09-SI	XT09-SI-128	9XTend Module – 1W transceiver, w/RPSMA connector, 115000 bps, industrial	60
XT09-ST	N/A	9XTend Module – 1W transceiver, w/RPSMA or MMCX connector, 115000 bps	60

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