

# Digi Connect<sup>®</sup> WAN Family

Cellular Gateways/Routers/VPN Devices

Small, cost-optimized cellular routers utilize global cellular networks for secure connectivity to remote sites and devices.



## Overview

Digi Connect WAN cellular routers provide secure high-speed wireless connectivity to remote sites and devices. These 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. The Digi Connect WAN family is also ideal for use where wired networks are not feasible, or where alternative network connections are required.

Digi Connect WAN products provide a primary Wireless WAN connection to remote sites containing Ethernet and/or serial devices. Applications include new construction locations, industrial automation, power utility substations, retail/POS sites, railroad, temporary facilities without primary wired connections, and many more.

For backup network applications, Digi Connect WAN integrates with remote locations via a secondary Ethernet WAN port on an existing router. This provides a truly diverse network connection for remote locations requiring maximum uptime.

### Target Applications



Utilities



Industrial Automation



Traffic Management

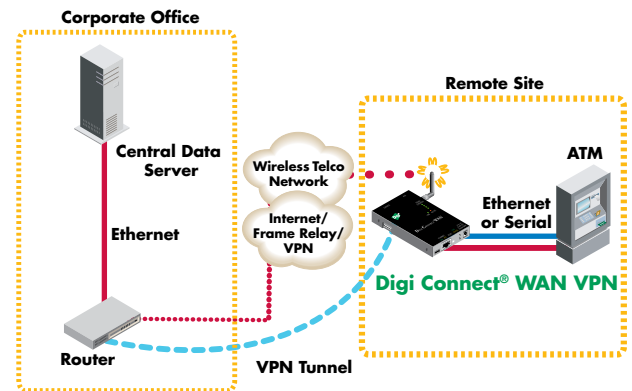


Remote Device Management



Retail/POS

### Application Highlight



### Features/Benefits

- Small, cost-optimized cellular routers with integrated VPN
- 2G/2.5G (GSM GPRS/EDGE & CDMA 1xRTT) models with 1 serial, 1 Ethernet port
- 3G (GSM HSUPA/UMTS & EV-DO Rev A PCI Express module) with 1 serial, 1 Ethernet, 1 USB, 1 sensor port
- Digi Connectware<sup>®</sup> Manager enables remote management of many remote devices
- Unique Digi SureLink<sup>™</sup> maintains "always-on" wireless connection
- Programmable in Python for device customization



### Digi Connect® WAN

2.5G Wireless WAN cellular router. Provides high performance wireless TCP/IP data communications via cellular GSM EDGE and CDMA 1xRTT networks to remote sites and devices.

### Digi Connect® WAN 3G

3G high speed upgradeable HSUPA/EV-DO Rev A Wireless WAN cellular router with integrated VPN. Provides primary and backup connectivity to remote sites and devices.

### Digi Connect® WAN GPRS

2G Wireless WAN cellular router/gateway. Provides reliable GPRS wireless TCP/IP data communications via cellular. Ideal for M2M applications.

### Digi Connect® WAN VPN

2.5G Wireless WAN cellular router plus integrated VPN. Creates a secure WAN connection via an Ethernet-to-cellular interface.

### Digi Connect® WAN IA Digi Connect® WAN 3G IA

Industrial-grade 2.5 to 3G Wireless WAN GSM/GPRS/EDGE/HSUPA, CDMA/EV-DO router/gateway. Offers all of the functionality of Digi Connect WAN VPN plus an industrial-grade feature set.

Specifications		Digi Connect® WAN GPRS	Digi Connect® WAN Digi Connect® WAN VPN	Digi Connect® WAN 3G	Digi Connect® WAN IA Digi Connect® WAN 3G IA
<b>Interfaces</b>					
<b>Serial</b>					
<b>Ports</b>	1 RS-232/422/485 DB-9; Up to 230 Kbps throughput; Hardware and software flow control; Signal support for TXD, RXD, RTS, CTS, DTR, DSR, DCD		1 RS-232 DB-9; Up to 230 Kbps throughput; Hardware and software flow control; Signal support for TXD, RXD, RTS, CTS, DTR, DSR, DCD		1 RS-232/422/485 DB-9; Up to 230 Kbps throughput; Hardware and software flow control; Signal support for TXD, RXD, RTS, CTS, DTR, DSR, DCD
<b>Ethernet</b>					
<b>Ports</b>	1 RJ-45 10/100 Mbps 10Base-T (auto-sensing); Full or half duplex				
<b>Cellular</b>					
<b>GSM GPRS 12/EDGE 12 -or- CDMA 2000 1xRTT</b>	Fixed		Upgradable (PCI Express Module)		Fixed
<b>UMTS/HSUPA &amp; EV-DO Rev A</b>	N/A		Upgradable (PCI Express Module - 3G models only)		
<b>Other Interfaces</b>					
<b>USB</b>	N/A		1 USB Type A connector (3G models only)		
<b>Sensor</b>	N/A				1 sensor port for use with Watchport Sensors (3G IA only)
<b>Dual SIM</b>	N/A		• (3G models only)		
<b>Features</b>					
<b>Network Protocols</b>	UDP/TCP, DHCP				
<b>Status LEDs</b>	Ethernet, power on, cellular link/activity, signal strength (4 bars)				
<b>Software</b>	Device-initiated patented RealPort COM port redirector and RFC 2217; Digi SureLink "always-on" connection; Python scripting; Custom development environment				
<b>Security</b>	SSL, SSL/TLS, SSHv2, FIPS 197				
<b>Router/Firewall Features</b>	NAT, NAT-T (NAT traversal) VPN tunneling, Port forwarding, VPN/GRE pass-through; Access control lists (IP filtering), IP pass-through, Virtual Router Redundancy Protocol (VRRP) per RFC 3768				

# Specifications

Digi Connect® WAN GPRS

Digi Connect® WAN  
Digi Connect® WAN VPN

Digi Connect® WAN 3G

Digi Connect® WAN IA  
Digi Connect® WAN 3G IA

## Features (continued)

<b>VPN Features</b>	IPsec with IKE/ISAKMP; Multiple tunnel support; DES, 3DES and up to 256-bit AES Encryption, Simple Certificate Enrollment Protocol (SCEP) for X.509 certificateN features not included on Digi Connect WAN model)	
<b>Management</b>	HTTP/HTTPS, CLI or Telnet; Optional secure enterprise management via Digi Connectware Manager	
<b>IA Features</b>	N/A	DIN rail mounting kit included; Class 1, Div 2 Rating (pending on 3G IA); Terminal block for power; Modbus to Modbus TCP protocol conversion
<b>Dimensions (L x W x H)</b>	5.25 in (13.34 cm) x 3.35 in (8.51 cm) x 0.97 in (2.47 cm) 3G models: 5.30 in (13.46 cm) x 3.38 in (8.58 cm) x 0.98 in (2.48 cm)	
<b>Weight</b>	1.00 lb (0.45 kg)	

## RF Features

### GSM Models

<b>GPRS</b>	850/900/1800/1900 MHz; Max 86 Kbps DL/UL	
<b>EDGE</b>	N/A	850/900/1800/1900 MHz; 216 Kbps DL, 108 Kbps UL
<b>HSUPA</b>	N/A	850/1900/2100 MHz HSUPA: 7.2 Mbps DL, 2.0 Mbps UL (VPN and 3G models only)
<b>Antenna</b>	1 x 50 Ω female SMA connector	2 antennas (Rx Diversity)

### CDMA Models

<b>1xRTT</b>	N/A	800 MHz; Max 153.6 DL/UL
<b>1xEV-DO</b>	N/A	1900 MHz; 3.1 Mbps DL, 1.8 Mbps UL (VPN and 3G IA models only)
<b>Antenna</b>	1 x 50 Ω female SMA connector	2 antennas (Rx Diversity)

## Power Requirements

<b>Power Input</b>	9-30VDC	
<b>Power Supply</b>	12VDC power supply for 0° C to 60° C (32° F to 140° F) with locking barrel connector included; Extended temperature power supply available	Power supply required (not included)
<b>DC Power Consumption</b>	Idle: 1.2W; Max: 3.4W	
<b>AC Power Consumption</b>	Idle: 2.0W; Max: 5.8W	
<b>Surge Protection</b>	4 kV burst (EFT) per-4-4; 2 kV surge per EN61000-4	

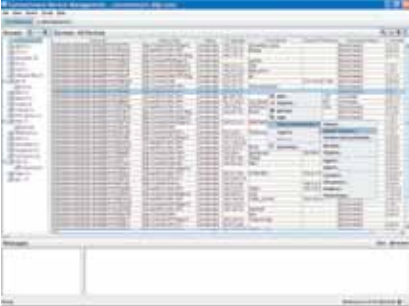
## Environmental

<b>Operating Temperature</b>	GSM models: -25° C to +75° C (-13° F to 167° F) CDMA models: -30° C to +75° C (-22° F to 167° F); Reduced cellular performance will occur above 60° C for CDMA models	
<b>Relative Humidity</b>	5 to 95% (non-condensing)	
<b>Ethernet Isolation</b>	1500VAC min per IEEE 802.3/ANSI X 3.263	
<b>Serial Port Protection (ESD)</b>	+15 kV air gap and +8 kV contact discharge per IEC 1000-4-2	

## Approvals

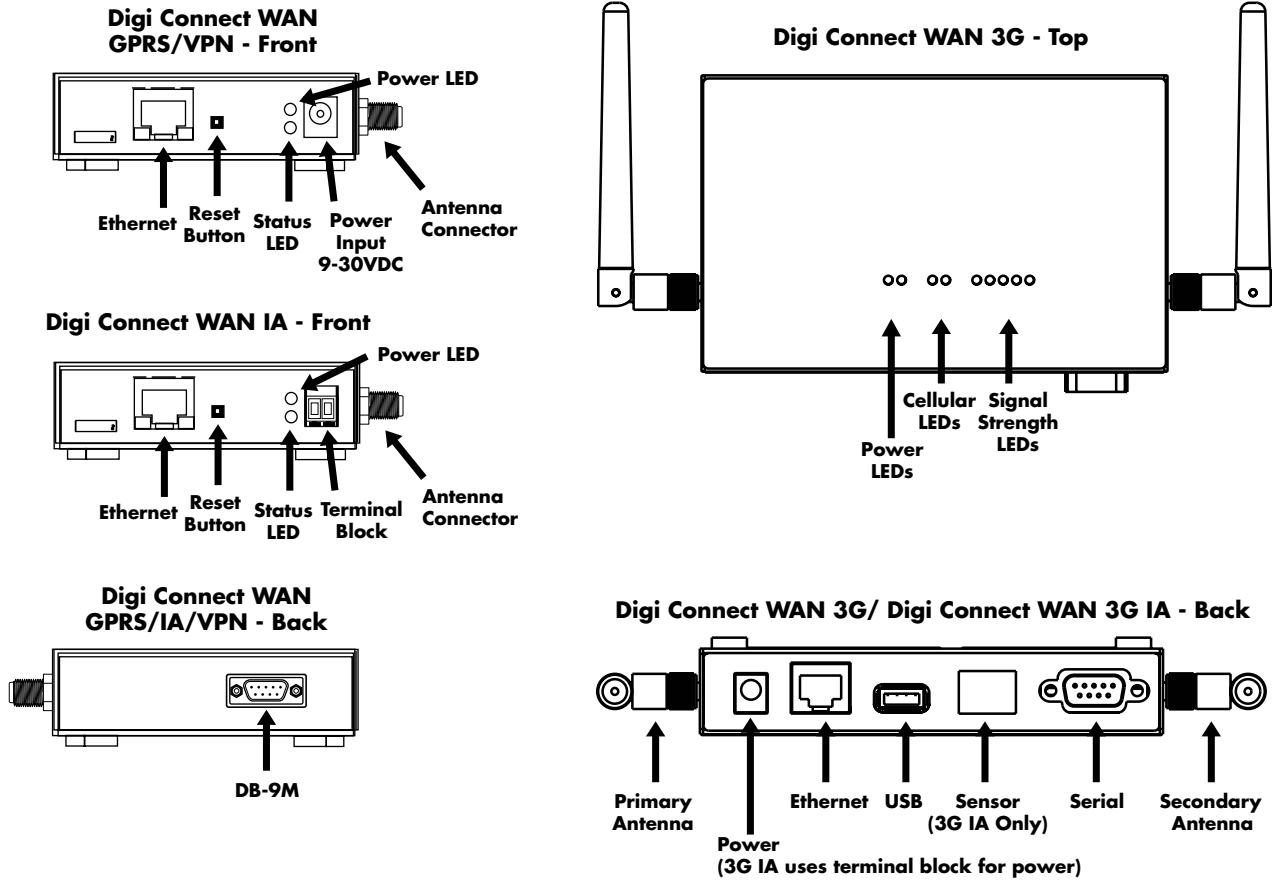
<b>Safety</b>	UL 60950, CSA 22.2 No. 60950, EN60950	
<b>Emissions/Immunity</b>	CE, FCC Part 15 Class A (FCC identifier GGL-R1902G), AS/NZS CISPR 22, EN55024, EN55022 Class A	
<b>Mobile Certifications - CDMA/EV-DO</b>	CDG, TIA/EIA-690, TIA/EIA-98-E	
<b>Mobile Certifications - GSM/UMTS</b>	PTCRB, NAPRD.03, GCF-CC, R&TTE, EN 301 511	
<b>Wireless Carrier Certifications</b>	Certified by most major carriers. See <a href="http://www.digi.com">www.digi.com</a> for current listing.	

## Digi Connectware® Manager



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

Digi Connectware Manager is an enterprise remote device management software that runs on a customer's 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. Includes built-in Dynamic DNS server for mapping an Internet host name to a dynamic/public IP address.



Visit [www.digi.com](http://www.digi.com) for part numbers.

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