

# Digi Connect<sup>®</sup> WAN Family

Cellular and WiMAX Routing Gateways/VPN Devices

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



## Overview

Digi Connect WAN cellular and WiMAX routing gateways 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

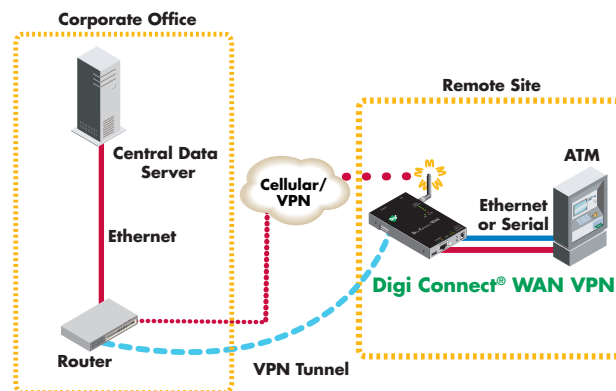


Remote Device Management



Retail/POS

### Application Highlight



### Features/Benefits

- Small, cost-optimized cellular routers with integrated VPN
- 2G/2.5G (GSM GPRS/EDGE) and CDMA 1xRTT models with 1 serial, 1 Ethernet port
- 3G/4G HSPA/HSPA+ and EV-DO Gobi with 1 serial, 1 Ethernet, 1 USB, 1 sensor port
- 4G WiMAX
- iDigi<sup>®</sup> Device Cloud<sup>™</sup> 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 routing gateway. Provides high performance wireless TCP/IP data communications via cellular GSM EDGE networks to remote sites and devices.

### Digi Connect® WAN 3G

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

### Digi Connect® WAN GPRS

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

### Digi Connect® WAN VPN

2.5G Wireless WAN cellular routing gateway 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/1xRTT routing gateway. Offers all of the functionality of Digi Connect WAN VPN plus an industrial-grade feature set.

### Digi Connect® WAN 4G

High speed/Low latency 4G commercial grade WiMAX routing gateway with integrated VPN. Provides primary and backup connectivity to remote sites and devices.

Specifications	Digi Connect® WAN GPRS	Digi Connect® WAN Digi Connect® WAN VPN	Digi Connect® WAN 2.5G Digi Connect® WAN 3G	Digi Connect® WAN IA Digi Connect® WAN 2.5G IA Digi Connect® WAN 3G IA	Digi Connect® WAN 4G
<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 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	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
<b>Ethernet</b>					
<b>Ports</b>	1 RJ-45 10/100 Mbps 10Base-T (auto-sensing); Full or half duplex, Auto crossover detection (Auto MDIX)				
<b>Other Interfaces</b>					
<b>USB</b>	N/A		1 USB Type A connector (2.5G/3G/4G models only)		
<b>Sensor</b>	N/A			1 sensor port for use with Watchport® Sensors (2.5G/3G IA modules only)	N/A
<b>Dual SIM</b>	N/A - single SIM only		2.5G/3G/4G models only		
<b>Features</b>					
<b>Network Protocols</b>	UDP/DHCP, SNMPv1/v2				
<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				
<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 certificate; VPN features not included on Digi Connect WAN model				
<b>Management</b>	HTTP/HTTPS, CLI or Telnet; Optional secure enterprise management via iDigi®				

# Specifications

Digi Connect® WAN GPRS

Digi Connect® WAN  
Digi Connect® WAN VPN

Digi Connect® WAN 2.5G  
Digi Connect® WAN 3G

Digi Connect® WAN IA  
Digi Connect® WAN 2.5G IA  
Digi Connect® WAN 3G IA

Digi Connect® WAN 4G

## Features (continued)

IA Features	N/A	DIN rail mounting kit included; Class 1, Div 2 Rating; Terminal block for power; Modbus to Modbus TCP protocol conversion	N/A
Dimensions (L x W x H)	5.25 in x 3.35 in x 0.97 in (13.34 cm x 8.51 cm x 2.47 cm) 2.5G/3G/4G models: 5.30 in x 3.38 in x 0.98 in (13.46 cm x 8.58 cm x 2.48 cm)		
Weight	1.00 lb (0.45 kg)		

## RF Features

### GSM Models

GPRS	850/900/1800/1900 MHz		N/A
EDGE	N/A	850/900/1800/1900 MHz	N/A
HSUPA/HSDPA/UMTS	N/A	850/900/1800/1900/2100 MHz	N/A
HSPA+	N/A	IA model: N/A 3G/3G IA models: 850/900/1900/2100 MHz with Rx Diversity; Optional multi-mode 800/850/900/1700 (AWS)/1900/2100 HSPA+/EV-DO Gobi support	N/A
Antenna	N/A	1 or 2 antennas (Rx Diversity) SMA (Center pin - on device: female; on antenna: male) GPRS/EDGE/HSUPA/HSDPA/UMTS model: 1 antenna; HSPA+ model: 2 antennas	N/A

### CDMA Models

1xEV-DO	N/A	IA model: N/A 3G/3G IA models: Multi-mode 800/850/900/1700 (AWS)/1900/2100 HSPA+/EV-DO Gobi support	N/A
1xRTT	N/A	800/1900 MHz	IA model: N/A 2.5G/3G IA model: 800/1900 MHz
Antenna	1 x 50 Ω SMA (Center pin - on device: female; on antenna: male)	1 or 2 antennas (Rx Diversity) SMA (Center pin - on device: female; on antenna: male) 2.5G model: 1 antenna; 3G model: 2 antennas	N/A

### 4G Models

WiMAX	N/A	WiMAX (802.16e-2005); 2.3-2.7 GHz (WF3A Profile); Wave2; S-OFDMA MIMO; QPSK, 16 QAM, 64 QAM; 5/10 MHz bandwidth UL/DL
Antenna	N/A	2 x 50 Ω RP-SMA (Center pin - on device: male; on antenna: female)

## Power Requirements

Power Input	9-30 VDC	6-30 VDC	IA model: 9-30 VDC 2.5G/3G IA model: 6-30 VDC	6-30 VDC
Power Supply	12 VDC power supply for 0° C to 60° C (32° F to 140° F) with locking barrel connector included (except IA models); Extended temperature power supply available; IA models require a power supply (not included)			
DC Power Consumption	Idle: 1.2W; Max: 3.4 W			
AC Power Consumption	Idle: 2.0W; Max: 5.8 W			
Surge Protection	4 kV burst (EFT) per-4-4; 2 kV surge per EN61000-4			

## Environmental

Operating Temperature	-30° C to +75° C (-22° F to 167° F) Reduced cellular performance may occur above 65° C (depending on module)			
Relative Humidity	5 to 95% (non-condensing)			
Ethernet Isolation	1500 VAC min per IEEE 802.3/ANSI X 3.263			
Serial Port Protection (ESD)	+15 kV air gap and +8 kV contact discharge per IEC 1000-4-2			

# Specifications

Digi Connect® WAN GPRS

Digi Connect® WAN  
Digi Connect® WAN VPN

Digi Connect® WAN 2.5G  
Digi Connect® WAN 3G

Digi Connect® WAN IA  
Digi Connect® WAN 2.5G IA  
Digi Connect® WAN 3G IA

Digi Connect® WAN 4G

## Approvals

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

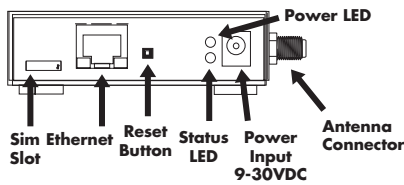
## iDigi® Device Cloud™

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

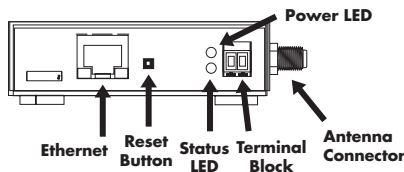


Digi products can be easily managed via the iDigi Device Cloud, which provides secure, scalable connectivity for remote management and control of remote devices. Based upon a cloud computing model that provides on-demand scalability and high-availability, the iDigi Device Cloud offers easy integration with M2M and mesh network devices via an open communications protocol. iDigi web services provide easy integration with network applications. The iDigi suite of robust network management tools includes authentication, configuration management, account management, group and individual software updating, network data storage, and gateway programming. All of this is provided via centralized control through the iDigi Manager Pro™ service module at [my.iDigi.com](http://my.iDigi.com).

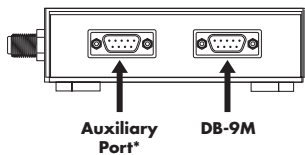
Digi Connect WAN - Front



Digi Connect WAN IA - Front

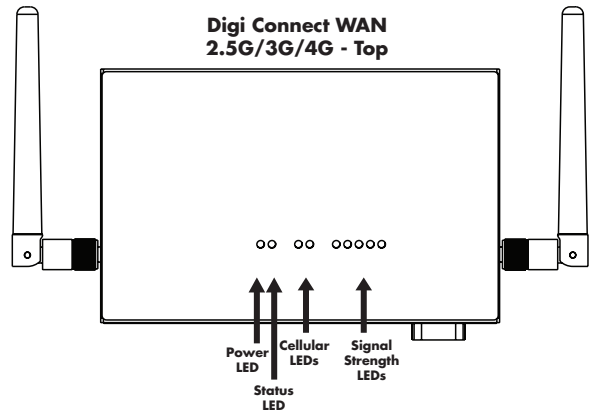


Digi Connect WAN & Digi Connect WAN IA - Back

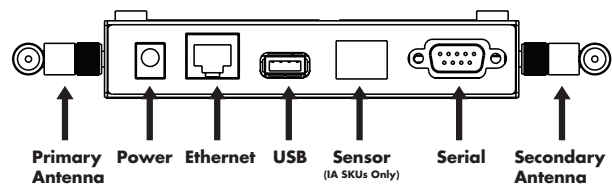


\*Digi Connect WAN IA does not include an auxiliary port

Digi Connect WAN 2.5G/3G/4G - Top



Digi Connect WAN 2.5G/3G/4G & Digi Connect WAN IA 2.5G/3G/4G - Back



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