Digi Connect® 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
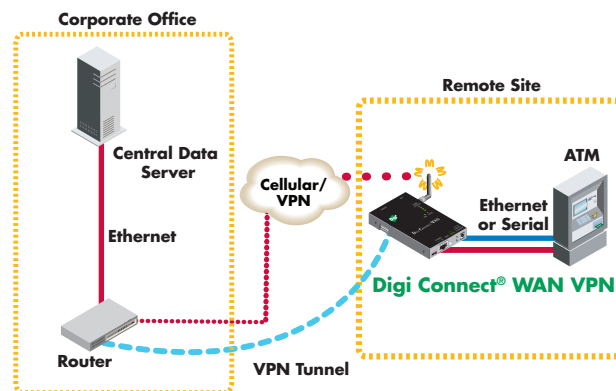

Utilities

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
- Device Cloud by Etherios™ enables remote management of many remote devices
- Unique Digi SureLink™ maintains "always-on" wireless connection
- Programmable in Python for device customization

Specifications	Digi Connect® WAN	Digi Connect® WAN IA
Wireless Interfaces		
WWAN **		
GSM/CDMA Gobi HSPA+ (U8)	HSPA+/EV-DO 800/850/900/1700 (AWS)/1900/2100 MHz Gobi with Rx Diversity	
Edge (E1)	GPRS/Edge 850/900/1800/1900 MHz	
CDMA 1xRTT (Bx)	1xRTT 800/1900 MHz	
WiMAX (Yx)	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	
Connector	1 or 2 x SMA (Center pin - on device: female; on antenna: male)	
SIM Slots	2 or 0 (CDMA varients)	
SIM Security	SIM slot cover plate	
Other		
RF	N/A	
Wi-Fi	N/A	
Satellite	N/A	
GPS	N/A	
Wired Interfaces		
Serial		
Ports	1	
Standard	RS-232	RS-232/422/485 (Software selectable)
DTE/DCE	DTE	
Signal Support	TXD, RXD, RTS, CTS, DTR, DSR and DCD	
Flow Control	Hardware and software flow control	
COM Port Redirector	RealPort®	
Throughput	Up to 230 Kbps	
Connector	DB9 Male	
Ethernet		
Ports	1	
Standard	IEEE 802.3	
Physical Layer	10/100Base-T	
Data Rate	10/100 Mbps (auto-sensing)	
Mode	Full or Half duplex (auto-sensing)	
Interface	Auto MDI/MDIX	
Connector	RJ-45	
I/O		
Ports	N/A	
Connector	N/A	

Specifications	Digi Connect® WAN	Digi Connect® WAN IA
Wired Interfaces (Continued)		
USB		
Ports	1	
Standard	USB 1.1	
Signaling	Full-speed	
Connector	Type A	
Other		
Sensor	N/A	1 sensor port for use with Watchport® sensors
Software/Management		
Management (Cloud-based)	Device Manager	
Management (Local)	Web Interface via HTTP/HTTPS, Password access control, IP service port control; CLI via serial port, Telnet, Python scripting; Digi SureLink™ "always-on" connection	
Security	SSL tunnels, SSHv2, FIPS 197 (IPsec, HTTPS)	
Network Protocols	UDP/TCP, DHCP, SNMPv1/v2	
VPN	IPsec with IKE/ISAKMP; Multiple tunnel support; DES, 3DES and up to 256-bit AES encryption; VPN pass-through, GRE forwarding; Simple Certificate Enrollment Protocol (SCEP) for X.509 certificate	
Routing	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	
Industrial Protocol Support	Modbus bridge enables Modbus serial to Modbus/TCP conversion; Integrated Python code allows gateway to act as Modbus client/master or Modbus server/slave; Functions like an Ethernet to serial bridge, but uses XBee to transport serial data; Handles unique timing issues per Modbus protocol rules; Uses Modbus Unit ID to look up IP or mesh MAC address.	
Real-Time Clock	Yes	
Memory	16 MB Flash, 32 MB RAM	
Power		
Input	6-30 VDC	
Consumption	Idle: 1.5 W, Max: 10.4 W	
Protection	4 kV burst (EFT) per-4-4, 2 kV surge per EN61000-4	
Connector	Locking barrel	Compression terminal block
DC Power Cord*	Available upon request	N/A
AC Power Supply*	12 VDC power supply for 0º C to 40º C (32º F to 104º F) included; Extended temperature power supply available separately	N/A
Battery Backup	N/A	
Physical		
Dimensions (L x W x H)	5.25 in x 3.35 in x 1.00 in (13.33 cm x 8.50 cm x 2.54 cm)	
Weight	0.44 lb (0.20 kg)	
Status LEDs	Ethernet status, Power, Cellular link/activity, Signal strength (4 bars)	
Enclosure Material	Industrial (metal)	
Enclosure Rating	N/A	
Mounting	Wall-mount bracket sold separately	DIN rail bracket included

| Specifications	Digi Connect® WAN	Digi Connect® WAN IA
Environmental		
Operating Temperature ***	-30º C to +75º C (-22º F to +167º F)	
Storage Temperature	-40º C to +85º C	
Relative Humidity	5% to 95% (non-condensing)	
Ethernet Isolation	1500 VAC min per IEEE 802.3/ANSI X3.263	
Serial Port Protection (ESD)	+15 kV Air Gap and +8 kV contact discharge per IEC 1000-4-2	
Hazardous (Class 1 Div 2)	No	Yes
Conformal Coating	N/A	
Approvals		
GSM/UMTS	PTCRB, NAPRD.03, GCF-CC, R&TTE, EN 301 511	
CDMA/EV-DO	CDG, TIA/EIA-690, TIA/EIA-98-E	
Cellular Carriers	Certified by most major carriers. See www.digi.com for current listing.	
Safety	UL 60950, CSA 22.2 No. 60950, EN60950; Class 1 Div 2 (IA model only)	
Emissions/Immunity	CE, FCC Part 15 (Class A), AS/NZS CISPR 22, EN55024, EN55022, Class A	
Warranty		
Product Warranty	5 Years	

* Optional hardware
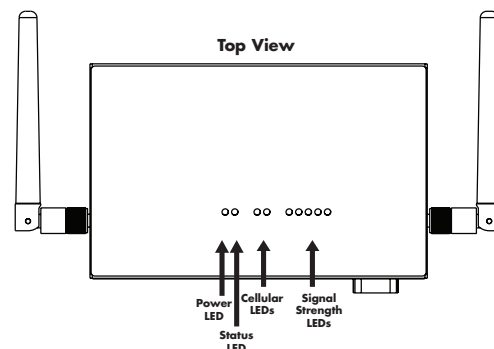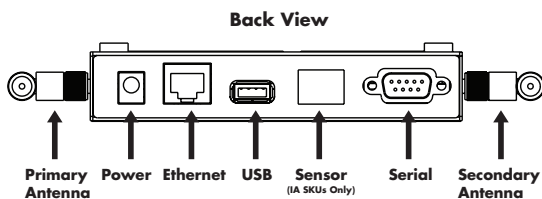** Transfer rates are network operator dependent
*** Reduced cellular performance may occur above +60° C. Standard Temperature power supplies may reduce temperature range.

Device Cloud

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

ZigBee
Cellular
Serial
Wi-Fi
Other

DEVICE CLOUD
by ETHERIOS

Enterprise Applications
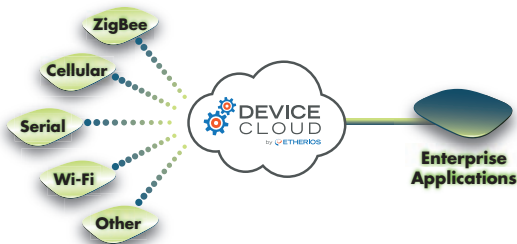
Digi products can be easily managed via Device Cloud, which provides secure, scalable connectivity for remote management and control of remote devices. Based upon a cloud computing model that provides on-demand scalability and high-availability, Device Cloud offers easy integration with M2M and mesh network devices via an open communications protocol. Device Cloud web services provide easy integration with network applications. Device Cloud 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 Device Manager service module at **login.etherios.com.**

Back View

Primary Antenna | Power | Ethernet | USB | Sensor (IA SKUs Only) | Serial | Secondary Antenna

Top View

Power LED | Status LED | Cellular LEDs | Signal Strength LEDs

Visit www.digi.com for part numbers.