Digi Connect® WAN Family
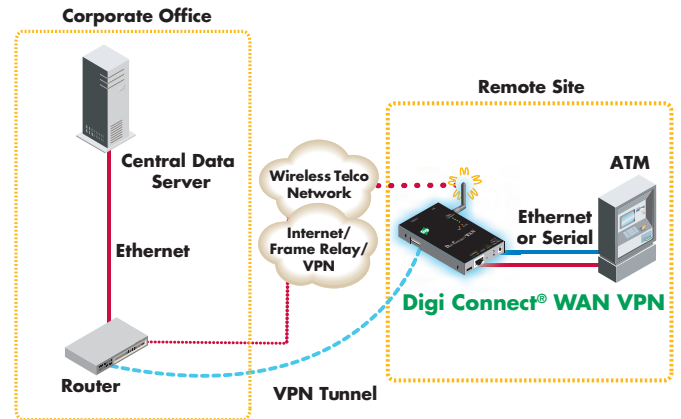
Cellular Gateways/Routers/VPN Devices

Cellular routers, gateways and VPN devices provide high performance wireless TCP/IP data communications via cellular GSM/CDMA networks, for primary and backup connectivity to remote sites and devices.

Product Datasheet

Features/Benefits

- Hardware suite includes cellular gateways, routers and VPN devices

- GSM GPRS/EDGE/UMTS/HSDPA or CDMA 1xRTT/EV-DO network for reliable 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 seamless management and monitoring of hundreds or thousands of devices

- Up to 256-bit AES security provides encryption and authentication for management communications via Digi Connectware Manager

Overview

The Digi Connect WAN family of commercial-grade Wireless WAN cellular routers, gateways and VPN appliances provides secure high-speed 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.

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

For backup network applications, Digi Connect WAN cellular products integrate 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, such as retail/POS and financial applications.

Digi SureLink is a unique feature that provides a "persistent connection" over wireless networks by utilizing a three-way client and server initiated scheme. All Digi Connect WAN cellular products seamlessly integrate with Digi Connectware® Manager, which provides easy setup, configuration and maintenance of large installations. Users can upgrade firmware or change settings on thousands of devices with only a few clicks. It also makes troubleshooting simple by reporting problems like identifying misbehaving devices or network issues.

Features Comparison

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 remotes sites and devices.

Digi Connect WAN 3G
3G high speed upgradeable HSDPA/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
Industrial-grade 2.5G Wirleless WAN GSM/CDMA router/gateway. Offers all of the functionality of Digi Connect WAN VPN plus an industrial-grade feature set.

	Digi Connect® WAN	Digi Connect® WAN GPRS	Digi Connect® WAN 3G	Digi Connect® WAN VPN	Digi Connect® WAN IA
Interfaces					
Serial Port Type	RS-232/422/485	RS-232/422/485	RS-232/422/485	RS-232/422/485	RS-232/422/485
10/100 Ethernet	•	•	•	•	•
USB Port			•		
Sensor Port			•		
GSM GPRS 12/EDGE 12 -or- CDMA 2000 1xRTT	Fixed	Fixed (GPRS Only)	Upgradable (PCI Express Module)	Fixed	Fixed
UMTS/HSDPA & EV-DO Rev A			Upgradable (PCI Express Module)		
Routing					
NAT, NAT-T, Port Forwarding, DHCP Server/Client, VPN Pass-Through, Firewall - IP Filtering, VRRP	•	•	•	•	•
Security					
SSL, SSHv2, FIPS 197, HTTPS	•	•	•	•	•
Integrated IPsec VPN		•	•	•	•
Management					
Built-in Web Interface and Command Line Interface	•	•	•	•	•
Digi Connectware® Manager	•	•	•	•	•
Special Features					
Digi SureLink™	•	•	•	•	•
RealPort® Virtual COM Ports	•	•	•	•	•
DIN Rail Mountable	•	•	•	•	• Kit Included
Terminal Block for Power, Modbus Support, Class 1, Div 2					•

Features/Specifications

FEATURES

- Easily accessible SIM
- Network protocols
  - UDP/TCP, DHCP
- Status LEDs
  - Ethernet, power on, cellular link/activity, signal strength
- Device-initiated RealPort for COM ports and RFC 2217
- Python scripting, custom development environment

Router/Firewall Features
- NAT
- NAT-T (NAT traversal) VPN tunneling
- Port forwarding
- VPN/GRE pass-through
- Access control lists (IP filtering)
- Virtual Router Redundancy Protocol (VRRP) per RFC 3768

Security
- SSL, SSHv2, FIPS 197

VPN Features
- IPsec with IKE/ISAKMP
- Multiple tunnel support
- DES, 3DES and AES up to 256-bit encryption
- Simple Certificate Enrollment Protocol (SCEP) for X.509 certificates

IA Features
– Digi Connect WAN IA
- DIN rail mounting kit included
- Class 1, Div 2 rating
- Terminal block for power
- Modbus to ModbusTCP protocol conversion

RF Features
– GSM GPRS Models
- GPRS multi-slot class 12
– GSM EDGE Models
- Edge Class 12
- Network: Quadband 1900/850 and 1800/900 MHz GSM GPRS/EDGE
- Transmit frequency: 1850-1910 MHz and 824-849 MHz
- Receiver frequency: 1930-1990 MHz and 869-894 MHz
- Throughput up to 240 Kbps, 100-130 Kbps typical
- External 50 Ohm female SMA connector
– CDMA 1xRTT Models
- Network: 800 MHz CDMA cellular: 1900 MHz CDMA PCS 1xRTT
- Transmit frequency: 1851-1909 MHz and 824-849 MHz
- Receiver frequency: 1931-1989 MHz and 869-894 MHz
- Throughput up to 153 Kbps, 60-80 Kbps typical
- External 50 Ohm female SMA connector

FEATURES (CONT.)

– GSM UMTS/HSDPA Models
- Upgradable PCI Express Module
  - UMTS: 850/1900/2100 MHz
  - HSPA: 850/950/1800/1900 MHz
  - External 50 Ohm female SMA connector
– CDMA EV-DO Rev A Models
- Upgradable PCI Express Module - Sprint, Verizon
  - Dualband 800/1900 MHz with RX Diversity
  - 2 external 50 Ohm female SMA connectors

Management
- HTTP and CLI for web management
- Optional secure enterprise management via Digi Connectware Manager

INTERFACES

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

Serial
- RS-232/422/485
- Throughput up to 230 Kbps
- Full signal support for TXD, RXD, RTS, CTS, DTR, DSR and DCD
- Hardware and software flow control
- Can provide diverse out-of-band console management for network devices like routers and switches

Other Interfaces (3G Model only)
- 1 USB Type A connector
- 1 sensor port (for use with Watchport Sensors)

ENVIRONMENTAL

- Operating temperature: -30° C to +70° C (-22° F to +158° F) for GSM models
- Operating temperature: -30° C to +60° C (-22° F to +140° F) for CDMA models
- Relative humidity: 5% to 95% (non-condensing)
- Ethernet isolation: 1500VAC min per IEEE802.3/ANSI X3.263
- Serial port protection (ESD): +15 kV Air 6 AP and +8 kV contact discharge per IEC 1000-4-2

WIRELESS CARRIER CERTIFICATIONS

- Certified by most major carriers. Please see www.digi.com for current listing.

POWER REQUIREMENTS

- Power input: 9-30VDC
- 12VDC power supply for 0° C to 60° C (32° F to 140° F) included; extended temperature available
- DC power consumption
  - Idle: 1.2 W
  - Max: 3.4 W
- AC power consumption
  - Idle: 2.0 W
  - Max: 5.8 W
- Surge protection (with included power supply)
  - 4 kV burst (EFT) per-4-4
  - 2 kV surge per EN61000-4-5 (non-condensing)

REGULATORY APPROVALS

Mobile Certifications
– GSM Models
- PTCRB, NAPRD.03
- GCF-CC
- R&TTE, EN 301 511
– CDMA Models
- CDG TIA/EIA-690
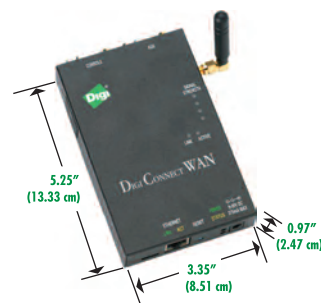- CDG TIA/EIA-98-E

Safety
- UL 60950
- CSA 22.2 No. 60950
- EN60950

Emissions/Immunity
- CE
- FCC Part 15, Class A (FCC identifier GGL-R1902G)
- AS/NZS CISPR 22
- EN55024
- EN55022, Class A

DIMENSIONS

- Width: 3.35 in (8.51 cm)
- Height: 0.97 in (2.47 cm)
- Length: 5.25 in (13.34 cm)
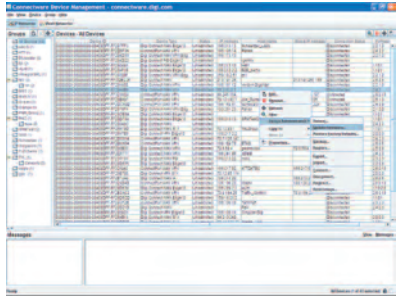- Weight: 1.00 lb (0.45 kg)

5.25" (13.33 cm)
0.97" (2.47 cm)
3.35" (8.51 cm)

Digi Connect WAN

0.97" (2.47 cm)
3.35" (8.51 cm)
5.25" (13.33 cm)

Digi Connect WAN 3G

Digi Connectware Manager

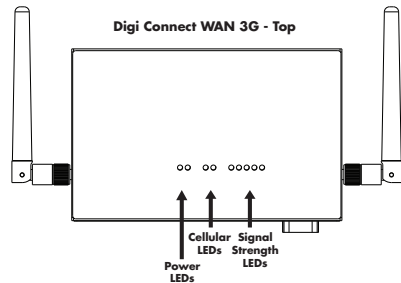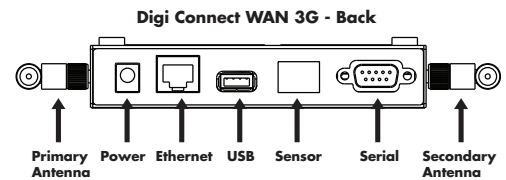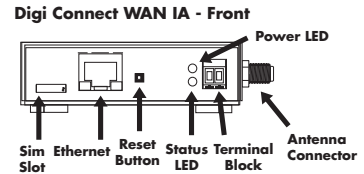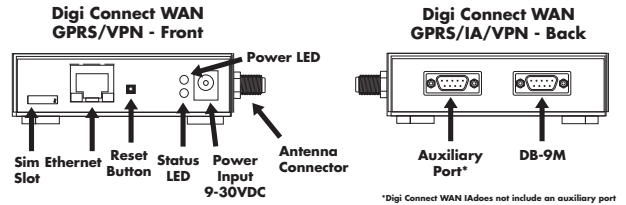## Manage many devices at the same time with just a few clicks

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.

Central Office
Ethernet
Internet/ Frame Relay/ VPN
Wireless Telco Network
Serial
Ethernet
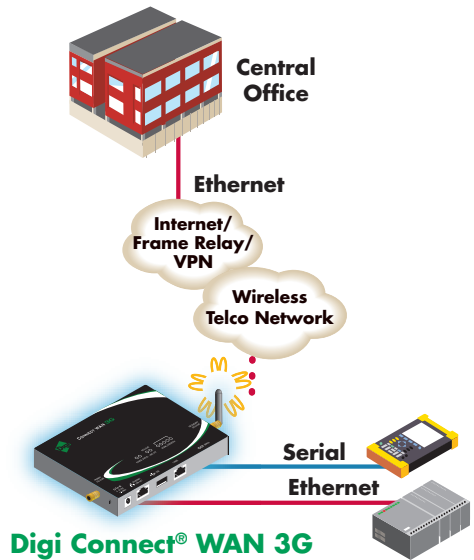
Digi Connect® WAN 3G

MODEL.....................PART NUMBERS

GSM Models	North America	International
Digi Connect WAN 3G (Generic HSDPA)	DC-WAN-T301-A	N/A
Digi Connect WAN 3G HSDPA AT&T	DC-WAN-T302-A	N/A
Digi Connect WAN 3G with Dual SIM - Cellular ready	N/A	DC-WAN-E300-W
Digi Connect WAN 3G with Dual Sim (Generic European HSDPA module included)	N/A	DC-WAN-E309-W
Digi Connect WAN GSM	DC-WAN-GE10A	DC-WAN-GE10A-W
Digi Connect WAN VPN GSM	DC-VPN-GE10A	DC-VPN-GE10A-W
Digi Connect WAN IA GSM	DC-WAN-F501	DC-WAN-F501

GPRS Models	North America	International
Digi Connect WAN GPRS	DC-WAN-A101-A	DC-WAN-A101-W

CDMA Models - North America Only	Sprint	Verizon	Alltel
Digi Connect WAN 3G (EV-DO Rev A)	DC-WAN-T310-A	DC-WAN-T311-A	TBD
Digi Connect WAN CDMA	DC-WAN-S1XA	DC-WAN-D111	DC-WAN-D116
Digi Connect WAN VPN CDMA	DC-VPN-S1XA	DC-WAN-D311	DC-WAN-D316
Digi Connect WAN IA 1xRTT	DC-WAN-G510	DC-WAN-G511	DC-WAN-G516

Accessories	North America	International
Dual Band 2" Monopole Antenna	DC-ANT-DBMP	DC-ANT-DBMP-W
Dual Band Desktop 2.8" Antenna with 8 ft. Cable	DC-ANT-DBDT	DC-ANT-DBDT
Dual Band Dipole 7" Antenna	DC-ANT-DBDB3	DC-ANT-DBDB3
Dual Band High Gain 14" Antenna with Magnetic Mount	DC-ANT-DBHG	DC-ANT-DBHG
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 Bracket	76000756	76000756
Wall Mount Bracket	76000641	76000641
48VDC to 12VDC Power Converter	76000696	76000696
Watchport/V3 USB Camera	301-9010-02	301-9010-02

Digi Connect WAN GPRS/VPN - Front

Power LED
Sim Slot · Ethernet · Reset Button · Status LED · Power Input 9-30VDC · Antenna Connector

Digi Connect WAN GPRS/IA/VPN - Back

Auxiliary Port* · DB-9M

*Digi Connect WAN IAdoes not include an auxiliary port

Digi Connect WAN IA - Front

Power LED
Sim Slot · Ethernet · Reset Button · Status LED · Terminal Block · Antenna Connector

Digi Connect WAN 3G - Back

Primary Antenna · Power · Ethernet · USB · Sensor · Serial · Secondary Antenna

Digi Connect WAN 3G - Top

Cellular LEDs · Signal Strength LEDs
Power LEDs

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

WHEN **RELIABILITY** *MATTERS™*

Digi International, the leader in device networking for business, develops reliable products and technologies to connect and securely manage local or remote electronic devices over the network or via the web. With over 20 million ports shipped worldwide since 1985, Digi offers the highest levels of performance, flexibility and quality.

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