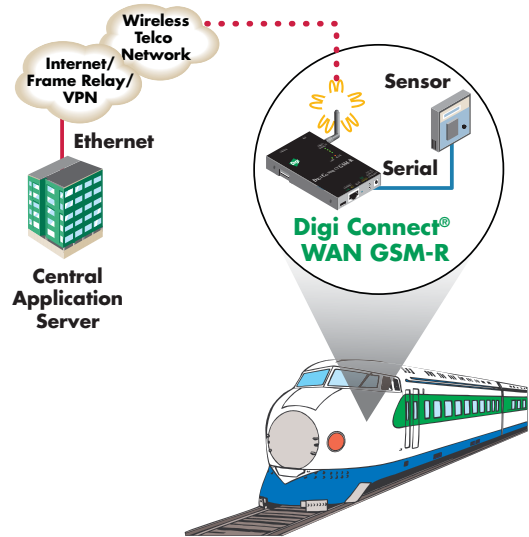


Digi Connect® WAN GSM-R

Wireless WAN Gateway/Router for Railway



Digi Connect WAN GSM-R provides high-performance wireless TCP/IP data communications via cellular GSM-R networks, for primary and backup connectivity to trains, signals and traveler information systems along railways.



Features/Benefits

- GSM-R for high speed wireless railway network connectivity
- Unique Digi SureLink "always-on" feature maintains network connection for rapid airtime on-demand communications
- 10/100Base-T Ethernet for direct IP connection to Ethernet port on existing IP device
- 9-30VDC for diverse power input
- Web interface for easy centralized console configuration and statistics
- Integrates with Digi Connectware® Suite for seamless management of hundreds or thousands of devices
- Up to 256-bit AES security provides encryption and authentication for management communications via Digi Connectware® Manager

Overview

Digi Connect WAN GSM-R provides wireless device connectivity to Ethernet networks and serial devices, utilizing the GSM-R infrastructure adjacent to railroad tracks and installations.

The GSM-R network, owned and operated by several European railway operators, is part of the European Rail Traffic Management System (ERMTS). It provides a secure and reliable wireless infrastructure for communication with trains, railway signal equipment, and customer information displays.

With a GPRS Class 10 cellular interface, Digi Connect WAN GSM-R provides data rates up to 240 Kbps (100-130 Kbps typical).

Benefits of wireless communications via Digi Connect WAN GSM-R include instant deployment, elimination of wiring costs, elimination of problems due to wire breaks and the ability to traverse firewalls. In addition, the Digi Connect WAN GSM-R offers the flexibility to move the connection anywhere within the coverage area of the railway operator's own free-of-charge data network.

Digi Connect WAN GSM-R seamlessly integrates with the Digi Connectware Suite, which provides easy setup, configuration and maintenance of large installations. Users can upgrade firmware or change settings on thousand of devices with only a few clicks. It also makes troubleshooting simple by reporting problems like identifying rogue devices and network issues.

Features/Specifications

FEATURES

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

Router/Firewall Features

- Access control lists (IP filtering)
- NAT
- NAT-T (NAT traversal) VPN tunneling
- Port forwarding
- VPN/GRE pass-through
- 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

RF Features

- GPRS Class 10: 85.6 Kbps max. (downlink)
- Output power:
 - Class 4 (2W) at EGSM900
 - Class 1 (1W) at GSM1800
- Quad-Band GSM-R /EGSM 900/GSM 1800
- GSM Phase 2/Phase 2+

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

ENVIRONMENTAL

- Operating temperature: -30° C to +70° C (-22° F to +158° F)
- 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 EN61000-4-2

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 EN61000-4-4
 - 2 kV surge per EN61000-4-5

REGULATORY APPROVALS

Safety

- UL 60950
- CSA 22.2 No. 60950
- EN60950

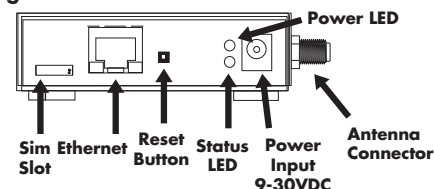
Emissions/Immunity

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

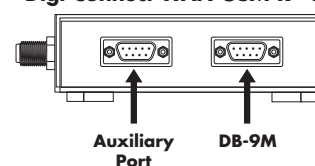
DIMENSIONS

- 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)

Digi Connect WAN GSM-R - Front



Digi Connect WAN GSM-R - Back



MODEL.....PART NUMBERS

Model

Digi Connect WAN GSM-R International

International

DC-WAN-R303-W

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



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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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