



4G LTE
M2M ROUTER



DIGI TRANSPORT WR31

Intelligent 4G LTE router designed for critical infrastructure and industrial applications

Digi TransPort® WR31 is an intelligent 4G LTE router designed for performance and reliability across a range of critical infrastructure and industrial applications. It provides a secure, reliable connection to industrial controllers, process automation equipment and smart grid assets on third party sites or remote locations. Software-defined, multi-carrier networking and global LTE and HSPA+ options make it easy to get connected. This drop-in connectivity gives operators a way to reduce downtime and service calls, and also increase revenue by bringing distributed sites online faster.

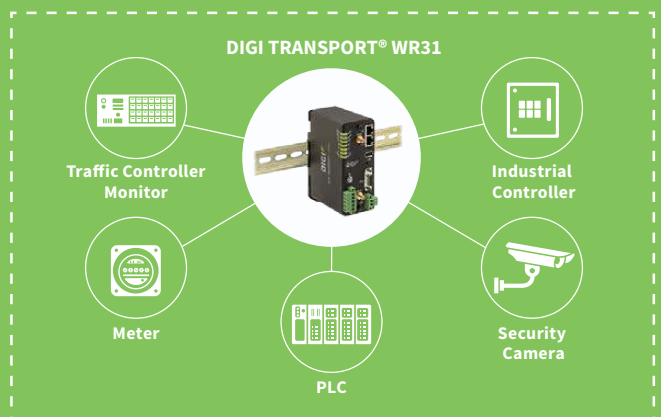
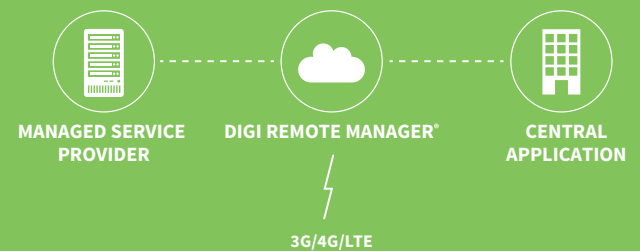
Ideal for connecting:

- Building and process automation controllers
- Smart grid assets (meters, switches, controllers)
- IP cameras and access controllers
- Remote data loggers, flow meters and sensing equipment
- Telco infrastructure
- Traffic and obstruction lighting

BENEFITS

- Global HSPA+ and 4G LTE support and certification on major carrier networks around the world
- Ethernet, serial I/O and Modbus bridging
- Extremely resilient cellular connection through Digi's patented SureLink™, VRRP+ protocol and dual SIM slots
- Dedicated GNSS Receiver supporting GPS, GLONASS, BeiDou, Galileo
- License-free enterprise software: VPN, firewall, logging and authentication
- Digi Remote Manager® device management tool
- Rugged enclosure, optimized for DIN rail or shelf mounting
- C1D2 and ATEX rated; NEMA TS2 temperature rated
- Digi Foundations™ 1-, 3- or 5-year subscription available

APPLICATION EXAMPLE



RELATED PRODUCTS



Digi TransPort®
WR21



Digi TransPort®
WR44 R



Digi Connect®
Sensor+



Accessories



Digi Remote
Manager®

SPECIFICATIONS

Digi TransPort® WR31

WIRELESS INTERFACES

CELLULAR

| | |
|--------------------------------|---|
| LTE - ANZ/LATAM (L9) | LTE-Advanced Cat 6: 700(B28)/850(B5,B18,B19)/900(B8)/1500(B21)/1800(B3)/1900(B39)/2100(B1)/2600(B7,B38)/2300(B40)/2500(B41) 3G HSPA+: 800/850/900/1700/2100 MHz Transfer rate (max): 300 Mbps down, 50 Mbps up GNSS: 30 channels (16 GPS, 14 GLONASS) simultaneous tracking |
| LTE - NORTH AMERICA (M8) | LTE-Advanced Cat 6: 700(B12,B13,B29)/800(B20,B26)/850(B5)/900(B8)/AWS(B4)/1800(B3)/1900(B2,B25)/2100(B1)/2300(B30)/2500(B41)/2600(B7) 3G HSPA+: 850/900/AWS/1800/1900/2100 MHz Transfer rate (max): 300 Mbps down, 50 Mbps up GNSS: 30 channels (16 GPS, 14 GLONASS) simultaneous tracking |
| LTE - NORTH AMERICA (M5) | LTE Cat 4: 700(B12,13)/850(B5)/AWS(B4)/1900(B2) 3G HSPA+: 850/1900 MHz Transfer rate (max): 150 Mbps down, 50 Mbps up |
| LTE - EMEA/APAC (M7) | LTE Cat 4: 800(B20)/900(B8)/1800(B3)/2100(B1)/2600(B7) HSPA: 900/2100 MHz EDGE: 900/1800 MHz Transfer rate (max): 150 Mbps down, 50 Mbps up |
| LTE 450 - EMEA/APAC (M2) | LTE Cat 3: 450(B31)/800(B20)/1800(B3)/2600 (B7) HSPA+: 900/2100 MHz EDGE: 900/1800 MHz Transfer rate (max): 100 Mbps down, 50 Mbps up |
| GLOBAL HSPA+ (U9) | 3G HSPA+: 850/900/1700/AWS/1900/2100 MHz 2G EDGE/GPRS: 850/900/1800/1900 MHz Transfer rate (max): 21 Mbps down, 5.76 Mbps up |
| CDMA EV-DO 450 MHZ - EMEA (D5) | 3G EVDO Rev B: 450 MHz 2G 1XRTT: 450 MHz Transfer rate (max): 14.7 Mbps down, 5.4 Mbps up |
| CONNECTORS | (2) 50 Ω SMA (center pin: female) |
| SIM SLOTS | (2) Mini-SIM (2FF) |
| SIM SECURITY | Screw-down SIM cover |
| GNSS (SELECT MODELS) | Protocol NMEA 0183 V3.0 Acquisition Time Hot Start 1 s; Warm Start 29 s; Cold Start 32 s Accuracy Horizontal: < 2 m (50%), < 5 m (90%); Altitude: < 4 m (50%), < 8 m (90%); Velocity: < 0.2 m/s |

SOFTWARE & MANAGEMENT

| | |
|--------------------------------------|---|
| REMOTE MANAGEMENT | Digi Remote Manager® (cloud based); SNMP v1/v2c/v3 (user installed/managed) |
| LOCAL MANAGEMENT | WebUI (HTTP/HTTPS); CLI (Telnet, SSH, SMS) |
| MANAGEMENT/ TROUBLESHOOTING TOOLS | FTP, SFTP, SCP; protocol analyzer with PCAP for Wireshark; event logging with Syslog and SMTP; NTP/SNTP |

WIRED INTERFACES

ETHERNET

| | |
|-------|---------------------------------------|
| PORTS | (2) RJ-45; 10/100 Mbps (auto-sensing) |
|-------|---------------------------------------|

SERIAL

| | |
|----------------|---|
| PORTS | (1) DB-9; DCE |
| STANDARD | RS-232/422/485 |
| SIGNAL SUPPORT | TXD, RXD, RTS, CTS, DTR, DCD, DSR, RI |
| FLOW CONTROL | Software (XON/XOFF), hardware supported |

I/O

| | |
|-----------|--|
| CONNECTOR | 5-pin screw down terminal block |
| DIGITAL | 0-30 VDC, 200 mA max.; (2) I/O, software -selectable |
| ANALOG | (1) analog I/O; 4-20 mA or 0-10V, software selectable; 12 bit resolution |

USB

| | |
|-------|--------------------|
| PORTS | (1) USB 2.0 Type A |
|-------|--------------------|

PHYSICAL

| | |
|------------------------|---|
| DIMENSIONS (L X W X H) | 12.7 cm x 8.9 cm x 5.1 cm (5 in x 3.5 in x 2 in) |
| WEIGHT | .5 kg (1.1 lb.) |
| STATUS LEDS | Power, service, WWAN, 3x signal strength, user programmable |
| ENCLOSURE/RATING | Aluminum / IP30 |
| MOUNTING | DIN rail mount included |

SPECIFICATIONS

Digi TransPort® WR31

POWER REQUIREMENTS

| | |
|--------------------------|---|
| POWER INPUT | 9 – 30 VDC, 18 W min power source required |
| POWER CONNECTOR | Screw down removable terminal block |
| POWER CONSUMPTION | 4 W typical (Idle); 12 W typical (Peak Tx/Rx) |

ENVIRONMENTAL

| | |
|-------------------------------------|---|
| HAZARDOUS (CLASS 1 DIV 2) | Yes |
| OPERATING TEMPERATURE | -34° C to 74° C (-29° F to 165° F); reduced cellular performance may occur above 60° C (140° F) |
| STORAGE TEMPERATURE | -40° C to 85° C (-40° F to 185° F) |
| ETHERNET ISOLATION | 1.5 kV RMS |
| SERIAL PORT PROTECTION (ESD) | 15 kV |
| RELATIVE HUMIDITY | 5% to 95% (non-condensing) |

APPROVALS

| | |
|---------------------------|--|
| CELLULAR | PTCRB |
| SAFETY | Hazardous locations: ANSI/ISA-12.12.01-2015, CAN/CSA C22.2 NO.213-15 Ordinary locations: UL 60950-1, 2nd Edition, 2014-10-14; UL 62368: 2014, 2nd Edition ATEX standards: Protection method Ex II 3 G Ex nA IIC T4 Gc EN 60079-0:2012+A11:2013, EN 60079-15:2010, DEMKO 15 ATEX 1574X Rev. 1 |
| IECEX STANDARDS | US/UL/ExTR17.0077/00 |
| EMISSIONS/IMMUNITY | CE, FCC Part 15 Class B, AS/NZS CISPR 22, EN55024, EN55022 Class B |

WARRANTY

| | |
|-------------------------|----------------------------|
| PRODUCT WARRANTY | 3-year + Digi Foundations* |
|-------------------------|----------------------------|

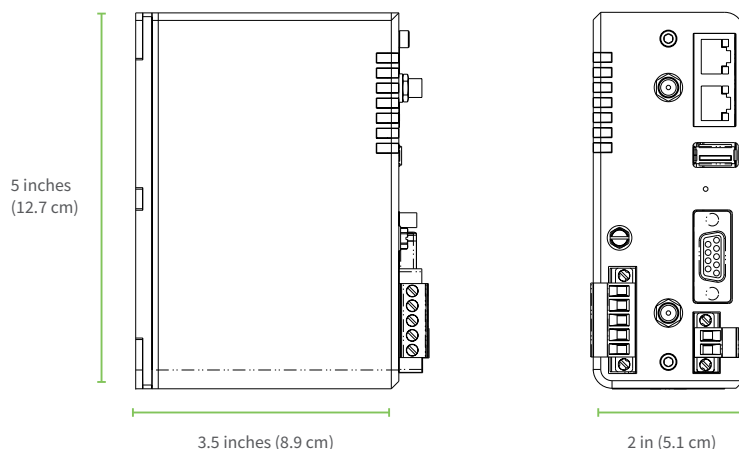
*Digi Foundations can extend the standard three-year warranty to a Limited Lifetime Warranty that provides replacement with a new or similar Digi product for a period of five years from the date of purchase. After five years from the purchase date, the warranty value will revert to a 40 percent credit towards the MSRP of an equivalent product from Digi.

ENTERPRISE SOFTWARE

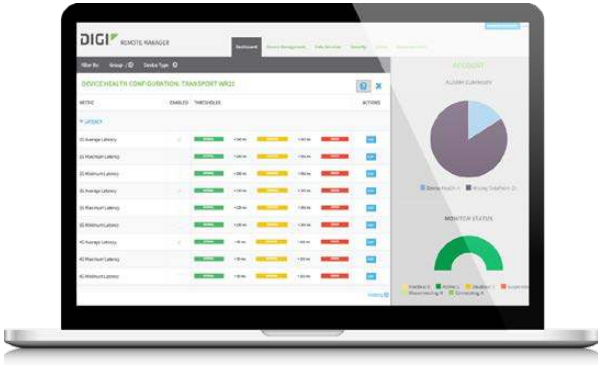
DESCRIPTION

| | |
|-------------------------|---|
| PROTOCOL SUPPORT | HTTP, HTTPS, FTP, SFTP, SSL, SNMP, SNMP (v1/v2c/v3), SSH, Telnet and CLI for web management; remote management via Digi Remote Manager; SMS management, protocol analyzer, ability to capture PCAP for use with Wireshark; DynDNS, Dynamic DNS client compatible with BIND9/No-IP/DynDNS |
| SECURITY/VPN | IP filtering, stateful inspection firewall with scripting, address and port translation; VPN: IPSec with IKEv1, IKEv2, NAT Traversal; SSL, SSLv2, SSLv3, FIPS 197, Open VPN client and server; PPTP, L2TP; (5) VPN tunnels (not upgradable); cryptology: SHA-1, MD5, RSA; encryption: DES, 3DES and AES up to 256-bit (CBC mode for IPsec); authentication: RADIUS, TACACS+, SCEP for X.509; certificates; content filtering (via 3rd party); MAC address filtering; VLAN support |
| ROUTING/FAILOVER | IP pass-through; NAT, NAPT with IP port forwarding; Ethernet bridging; GRE; multicast routing; routing protocols: PPP, PPPoE, RIP (v1, v2) OSPF, SRI, BGP, iGMP routing (multicast); IP failover: VRRP, VRRP+TM; automatic failover/failback to second GSM network/standby APN |
| OTHER PROTOCOLS | DDHCP; Dynamic DNS client compatible with BIND9/No-IP/DynDNS; QoS via TOS/DSCP/WRED; Modbus UDP/TCP to serial; X.25 including XOT, SNA/IP, TPAD and PAD; protocol switch; Modbus bridging for connecting diverse field assets |

PRODUCT IMAGES



DIGI REMOTE MANAGER®



INFRASTRUCTURE

- Hosted in a commercial-grade SAS 70-certified environment
- Superior availability, operating to 99.9% or greater
- Open APIs available to support application development

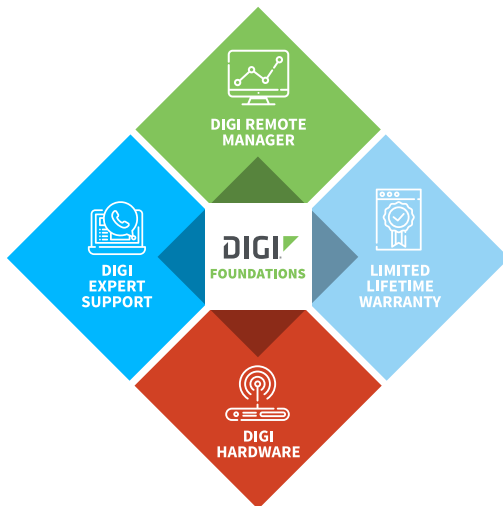
CAPABILITIES

- Centralized management of remote devices over 3G/4G/LTE
- Define standard configurations and automatically monitor individual devices for PCI security compliance
- Report and alert on performance statistics, including connection history, signal quality, latency, data usage and packet loss
- No servers or applications to operate and maintain
- Complete tasks for your entire device network in minutes
- Edit configurations and update firmware for your individual devices or groups
- Monitor the status and location of your remote device via a web browser
- Active or deactivate cellular lines and monitor data to ensure you never incur overage charges

SECURITY

- Certified SSAE-16 facilities
- Over 175 security controls in place to protect your data
- Enables compliance with security frameworks like PCI, HIPAA, NIST and more
- Earned SkyHigh's Cloud Trust Program highest ranking of Enterprise-ready
- PCI certified; Attestation of Compliance

DIGI FOUNDATIONS™



IT'S TIME TO CONNECT WITH CONFIDENCE

The convenient, comprehensive and secure way to integrate IoT communications hardware, device management software, global support and lifetime warranty protection into a connectivity solution to simplify your IoT network growth.

- [Digi Remote Manager®](#) (DRM) gives you a single point of contact, command and control with sophisticated remote device monitoring and management tools.
- [Digi Expert Support](#) is available around the clock, seven days a week, around the world with experts ready to provide technical support by phone, email or online.
- [Digi Limited Lifetime Warranty](#) lowers the total cost of ownership with hardware protection and equipment upgrades to expand your network as needs evolve.

Digi Foundations, with DRM, simplifies network and device management – for hundreds or hundreds-of-thousands of Digi or third-party devices – with options to upgrade as technology evolves. Isn't it time you got better connected?

For more information visit: digi.com/foundations

| PART NUMBERS | DIGI TRANSPORT WR31 |
|------------------|--|
| WR31-M82A-DE1-TB | Digi TransPort WR31 - 4G LTE North America/EMEA, dual Ethernet, RS-232/422/485, Class 1 Div 2 (C1D2) |
| WR31-L92A-DE1-TB | Digi TransPort WR31 - 4G LTE LATAM/ANZ, dual Ethernet, RS-232/422/485, ATEX |
| WR31-M52A-DE1-TB | Digi TransPort WR31 - 4G LTE North America, dual Ethernet, RS-232/422/485, Class 1 Div 2 (C1D2) |
| WR31-M72A-DE1-TB | Digi TransPort WR31 - 4G LTE EMEA/APAC, dual Ethernet, RS-232/422/485, ATEX |
| WR31-M22A-DE1-TB | Digi TransPort WR31 - 4G LTE EMEA/APAC (450MHz), dual Ethernet, RS-232/422/485, ATEX |
| WR31-U92A-DE1-TB | Digi TransPort WR31 - HSPA+ Global, dual Ethernet, RS-232/422/485, Class 1 Div 2 (C1D2) |
| WR31-D52A-DE1-TB | Digi TransPort WR31 - CDMA 450MHz, dual Ethernet, RS-232/422/485, ATEX |

| DIGI FOUNDATIONS™ | AVAILABLE FOR DIGI TRANSPORT WR31 |
|-------------------|---|
| DGF-BDL-STAN-1YR | Digi Foundations add-on, 1 year, includes Expert Support, Digi Remote Manager, and Limited Lifetime Warranty |
| DGF-BDL-STAN-3YR | Digi Foundations add-on, 3 years, includes Expert Support, Digi Remote Manager, and Limited Lifetime Warranty |
| DGF-BDL-STAN-5YR | Digi Foundations add-on, 5 years, includes Expert Support, Digi Remote Manager, and Limited Lifetime Warranty |

| PART NUMBERS | ACCESSORIES* |
|--------------|--|
| 76000926 | Antenna - cellular, 3G/4G/LTE |
| 76000954 | Antenna base – SMA, 1 m, RG174 |
| 76000736 | AC power supply - extd temperature, US and EU power cords to 12 VDC - 2.1 mm locking barrel plug |
| 76000966 | Mounting bracket – wall mount |
| 76000977 | Mounting bracket – DIN rail |
| 76000826 | Cable - Ethernet, RJ-45 to RJ-45, 2 m |

*Sold separately, unless otherwise noted.

FOR MORE INFORMATION
PLEASE VISIT Digi.COM

DIGI SERVICE AND SUPPORT / You can purchase with confidence knowing that Digi is always available to serve you with expert technical support and our industry leading warranty. For detailed information visit www.digi.com/support.

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