



4G LTE
M2M ROUTER



DIGI TRANSPORT WR31

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

The Digi TransPort® WR31 is an intelligent 4G LTE router designed for 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

RELATED PRODUCTS



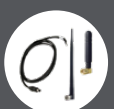
Digi TransPort®
WR21



Digi TransPort®
WR44 R



Digi Connect®
Sensor+

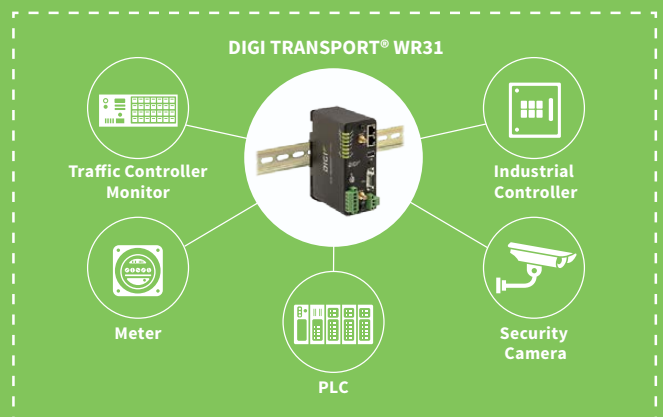
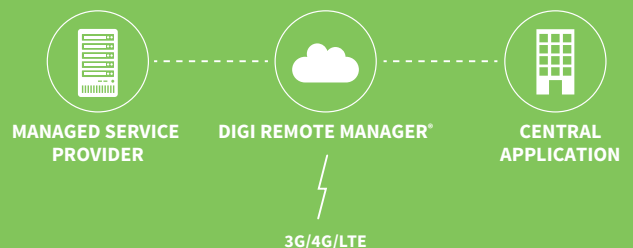


Accessories



Digi Remote
Manager®

APPLICATION EXAMPLE



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+: 850/900/1700AWS/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 1s; Warm Start 29s; Cold Start 32s
 Accuracy Horizontal: < 2m(50%), <5m(90%); Altitude: <4m (50%), <8m (90%); Velocity: <0.2m/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, 200mA max.; (2) I/O, software -selectable

ANALOG

(1) analog I/O; 4-20mA or 0-10V, software selectable; 12 bit resolution

USB

PORTS

(1) USB 2.0 Type A

PHYSICAL

DIMENSIONS (L X W X H)

5 in x 3.5 in x 2 in (12.7 cm x 8.9 cm x 5.1 cm)

WEIGHT

1.1 lb. (.5 kg)

STATUS LEDS

Power, service, WWAN, 3x signal strength, User programmable

ENCLOSURE/RATING

Aluminum / IP30

MOUNTING

DIN rail mount included

SPECIFICATIONS

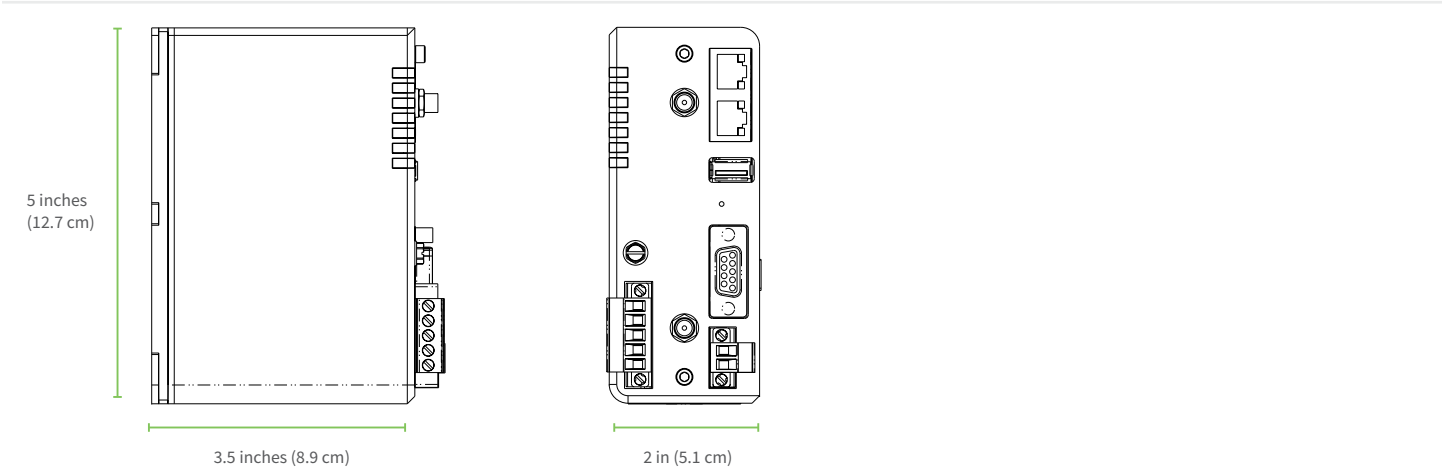
Digi TransPort® WR31

POWER REQUIREMENTS	
POWER INPUT	9 – 30 VDC, 18W min power source required
POWER CONNECTOR	Screw down removable terminal block
POWER CONSUMPTION	4W typical (Idle); 12W 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)
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  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 years + Digi Foundations*

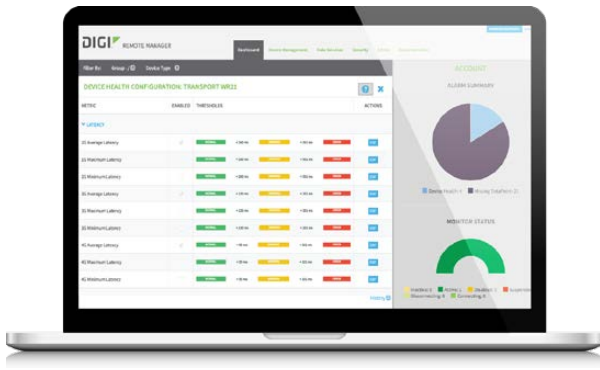
*Digi Foundations can extend the standard three-year warranty to a Limited Lifetime Warranty that provides replacement with a new or similar Digi product for a period of five years from the data of purchase. After five years from the purchase date, the warranty value will revert to a 40 percent credit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



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

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

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

PART NUMBERS	DIGI TRANSPORT WR31
WR31-M82A-DE1-TB	Digi TransPort WR31 - 4G LTE North America/EMEA, Dual Ethernet, RS232/422/485, Class 1 Div 2 (C1D2)
WR31-L92A-DE1-TB	Digi TransPort WR31 - 4G LTE LATAM/ANZ, Dual Ethernet, RS232/422/485, ATEX
WR31-M52A-DE1-TB	Digi TransPort WR31 - 4G LTE North America, Dual Ethernet, RS232/422/485, Class 1 Div 2 (C1D2)
WR31-M72A-DE1-TB	Digi TransPort WR31 - 4G LTE EMEA/APAC, Dual Ethernet, RS232/422/485, ATEX
WR31-M22A-DE1-TB	Digi TransPort WR31 - 4G LTE EMEA/APAC (450MHz), Dual Ethernet, RS232/422/485, ATEX
WR31-U92A-DE1-TB	Digi TransPort WR31 - HSPA+ Global, Dual Ethernet, RS232/422/485, Class 1 Div 2 (C1D2)
WR31-D52A-DE1-TB	Digi TransPort WR31 - CDMA 450MHz, Dual Ethernet, RS232/422/485, ATEX
PART NUMBERS	DIGI FOUNDATIONS ADD-ONS
DGF-BDL-PREM-1YR	Digi Foundations add-on bundle 1 year
DGF-BDL-PREM-3YR	Digi Foundations add-on bundle 3 years
DGF-BDL-PREM-5YR	Digi Foundations add-on bundle 5 years
PART NUMBERS	ACCESSORIES*
76000926	Antenna - Cellular, 3G/4G/LTE
76000954	Antenna Base – SMA, 1m, RG174
76000736	AC Power Supply - Extd Temperature, US and EU Power Cords to 12VDC - 2.1mm locking barrel plug
76000966	Mounting Bracket – Wall Mount
76000977	Mounting Bracket – DIN Rail
76000826	Cable - Ethernet, RJ45 to RJ45, 2m

*Sold separately, unless otherwise noted.

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.

© 1996-2019 Digi International Inc. All rights reserved.
All trademarks are the property of their respective owners.

91003183
B18/619

DIGI INTERNATIONAL WORLDWIDE HQ
877-912-3444 / 952-912-3444 / www.digi.com

DIGI INTERNATIONAL GERMANY
+49-89-540-428-0

DIGI INTERNATIONAL JAPAN
+81-3-5428-0261 / www.digi-intl.co.jp

DIGI INTERNATIONAL SINGAPORE
+65-6213-5380

DIGI INTERNATIONAL CHINA
+86-21-50492199 / www.digi.com.cn

