



ENTERPRISE CLASS  
4G LTE ROUTER



# DIGI TRANSPORT® WR41

Flexible, enterprise class cellular router for remote and mobile networking applications

The Digi TransPort WR41 cellular router offers a robust communications solution with true enterprise class routing, security and firewall. This multifunction cellular router features a flexible design with integrated Wi-Fi access point (with multi SSID) / Client, USB, serial and single port Ethernet switch, as well as a variety of configuration options including multiple serial ports (async or sync), GPS or I/O telemetry modules.

The Digi TransPort WR41 offers an advanced routing, security and firewall feature set including stateful inspection firewall and integrated VPN. Enterprise class protocols incorporate

BGP, GRE, OSPF and VRRP+, a patented technology built upon the popular VRRP failover standard providing true auto-sensing, auto-failure and auto-recovery of any line drop.

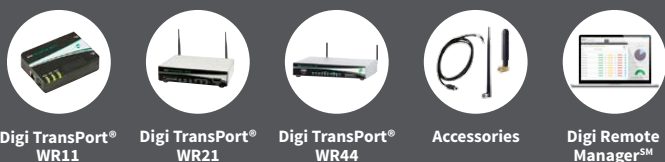
Digi TransPort WR41 routers are ideal for PCI compliant applications including advanced security, logging and firewall features.

Digi remote management software provides easy setup, configuration and maintenance of large installations of Digi TransPort devices.

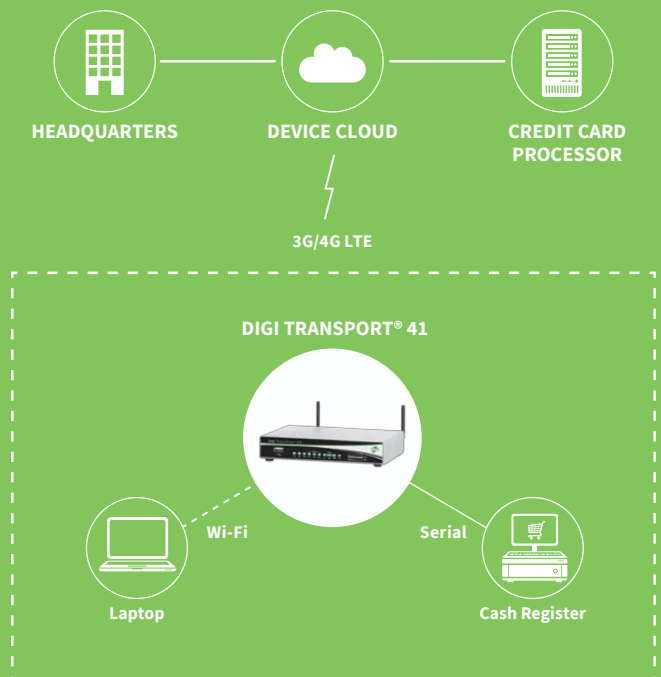
## BENEFITS

- Enterprise class cellular routers with advanced dynamic routing, security and firewall features
- CAN Bus support and rugged enclosure options
- High speed cellular interfaces
- Integrated 802.11a/b/g/n Wi-Fi access point
- Flexible interfaces including serial (async/sync), GPS, USB and telemetry, with flexible DC power options
- Powerful integrated end user programming
- Digi remote management software for easy setup, configuration and maintenance

## RELATED PRODUCTS



## APPLICATION EXAMPLE



## SPECIFICATIONS

## Digi TransPort® WR41

## WIRELESS INTERFACES

## WWAN\*\*

<b>LTE - EMEA (L1)</b>	800/850/900/1800/1900/2100/2600 MHz; 3G fall back to 850/900/1900/2100 MHz and 2G fall back to 850/900/1800/1900 MHz; Transfer rate (max): 50 Mbps Up, 100 Mbps Down
<b>LTE - NORTH AMERICA (L5)</b>	Multi-Carrier (Verizon, AT&T, and Sprint) 700/850/1700(AWS)/1900 MHz; 2G/3G GSM fall back to 850/900/1700AWS/1800/1900/2100 MHz; 2G/3G CDMA fall back to 800/1900 MHz; Transfer rate (max): 50 Mbps Up, 100 Mbps Down
<b>HSPA+ (U9)</b>	850/900/1700 (AWS)/1900/2100 MHz; Transfer rate (max): 5.76 Mbps Up, 21 Mbps Down
<b>GSM-R (R5)*</b>	900/1800/1900 MHz (TRM-5); GPRS Class 10; Transfer rate (max): 42.8 Kbps Up, 85.6 Kbps Down
<b>EDGE (E1)</b>	GPRS/EDGE Class 10; 850/900/1800/1900 MHz; Transfer rate (max): 236 Kbps Up/Down
<b>CDMA EV-DO (DX)*</b>	450 MHz; EV-DO Rev B; R-UIM support; Transfer rate (max): 14.7 Mbps Up; 5.4 Mbps Down
<b>CDMA 1XRTT (BX)*</b>	N/A
<b>CONNECTOR</b>	Ux, Lx variants: 2 x 50 Ω SMA (Center pin: female); E1, Dx, Bx variants: 1 x 50 Ω SMA (Center pin: female)
<b>SIM SLOTS</b>	2, Mini-SIM (2FF)
<b>SIM SECURITY</b>	Optional SIM slot cover plate

## WI-FI\*

<b>STANDARD</b>	802.11b/g/n
<b>MODES</b>	Access point, Client and support for multiple SSID
<b>TRANSMIT POWER</b>	17 dBm ± 2 dBm
<b>RECEIVE SENSITIVITY</b>	54 Mbps / -70 dBm and 11 Mbps / -83.5 dBm
<b>SECURITY</b>	Open or shared key authentication; WEP (64- and 128-bit) encryption; WPA/WPA2 with RADIUS (WPA Enterprise and pre-shared keys)
<b>CONNECTORS</b>	2 x 50 Ω RP-SMA (Center pin: male)

## GPS\*

<b>CHANNELS</b>	50
<b>SENSITIVITY</b>	-163 dB
<b>PROTOCOL</b>	NMEA 0183 V2.3 sentence output; +3.3 VDC active antenna drive; NMEA stream to local serial port or over TCP/IP
<b>NAVIGATION</b>	Galileo ready
<b>AUGMENTATION</b>	SBAS
<b>COLD START</b>	< 27 seconds TTFF (90%)
<b>HORIZONTAL ACCURACY</b>	< 2.5 meters (90%)
<b>VELOCITY ACCURACY</b>	0.1m/s
<b>CONNECTOR</b>	1 x 50 Ω SMA (Center pin: female)
<b>ADDITIONAL FEATURES</b>	Send GPS via UDP/IP, TCP/IP (up to two destinations) or serial; Customize and/or send data using Python; GPS status query; Time source capable

## WIRED INTERFACES

## SERIAL

<b>PORTS</b>	1; Expansion cards available to increase serial ports
<b>STANDARD</b>	RS-232; Expansion cards available in RS-422/485
<b>ASYNC/SYNC</b>	Async; Expansion cards available in sync
<b>DTE/DCE</b>	DCE
<b>SIGNAL SUPPORT</b>	TXD, RXD, RTS, CTS, DTR, DCD
<b>FLOW CONTROL</b>	Software (XON/XOFF), Hardware supported
<b>COM PORT REDIRECTOR</b>	RealPort®
<b>CONNECTOR</b>	RJ-45

\* Optional hardware. Lead time and/or minimum order quantity may apply. Contact Digi Sales for details.

\*\* Transfer rates are network operator dependent

\*\*\* Reduced cellular performance may occur outside of -20° C to +60° C. Standard temperature power supplies may reduce temperature range.

\*\*\*\* The enclosure rating is self-declared and has not been formally verified by an independent lab.

## SPECIFICATIONS

## Digi TransPort® WR41

## WIRED INTERFACES (CONTINUED)

## ETHERNET

PORTS	1
STANDARD/PHYSICAL LAYER	IEEE 802.3; 10/100 Base-T
DATA RATE/MODE/INTERFACE	10/100 Mbit/s; Full or Half duplex; Auto MDI/MDIX
CONNECTOR	RJ-45

## I/O\*

DIGITAL I/O	Extended temperature variants: Input 4 - 28 VDC / Output: 28 VDC 50 mA max
CONNECTOR	N/A

## USB

PORTS	1
STANDARD	USB 1.0
SIGNALING	Full- or low-speed
CONNECTOR	Type A

## OTHER\*

EXPANSION CARDS	Optional expansion cards available for GPS, fleet, telemetry (digital/analog I/O), ISDN/PSTN, serial and DialServ
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## MANAGEMENT

REMOTE MANAGEMENT	Digi Remote Manager <sup>SM</sup> (cloud-based); SNMP v1/v2c/v3 (user installed/managed)
LOCAL MANAGEMENT	Web Interface (HTTP/HTTPS); CLI (Telnet, SSH, SMS, Serial port)
MANAGEMENT/ TROUBLESHOOTING TOOLS	FTP, SFTP, SCP, Protocol Analyzer with PCAP for Wireshark, Event Logging with Syslog and SMTP, NTP/SNTP
PROGRAMMING TOOLS/ ENVIRONMENTS	Python, DIA, Digi ESP <sup>TM</sup>
MEMORY	64 MB RAM, 32 MB NOR Flash

## POWER

INPUT	8-48 VDC
CONSUMPTION	6W max, 4W typical
CONNECTOR	Standard temp variants: Locking barrel; Extended temp variants: 4-pin terminal block (2 pins are used for power; the other 2 pins are not used).
DC POWER CORD*	Locking barrel to bare wire or 4-pin connector to bare wire
DC POWER SUPPLY*	100-240 VAC 50/60 Hz; Option of standard temperature or extended temperature
BATTERY BACKUP	None

## PHYSICAL

DIMENSIONS (L X W X H)	4.7 in x 6.8 in x 1.3 in (120 mm x 173 mm x 32 mm)
WEIGHT	1.27 lb (0.53 kg)
STATUS LEDS	Power, LAN, Wi-Fi, WWAN (Link, Act, SIM), Signal strength, Serial
MATERIAL/RATING****	Industrial (Metal)/ IP30
MOUNTING	Brackets for wall mount & DIN rail sold separately

## ENVIRONMENTAL

OPERATING TEMPERATURE ***	0° C to 40° C; Extended temp optional (-10° C to +70° C (Wi-Fi variants); -25° C to +70° C (non-Wi-Fi variants))
STORAGE TEMPERATURE	-40° C to +85° C
RELATIVE HUMIDITY	0% to 95% (non-condensing) @ 25° C

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## SPECIFICATIONS

## Digi TransPort® WR41

### ENVIRONMENTAL (CONTINUED)

<b>ETHERNET ISOLATION</b>	1.5 kV RMS
<b>SERIAL PORT PROTECTION (ESD)</b>	15 kV
<b>HAZARDOUS (CLASS 1 DIV 2)</b>	N/A
<b>CONFORMAL COATING</b>	N/A
<b>GSM/UMTS</b>	PTCRB, NAPRD.03, GCF-CC, R&TTE, EN 301 511
<b>CDMA/EV-DO</b>	CDG TIA/EIA-690, CDG TIA/EIA-98-E
<b>CELLULAR CARRIERS</b>	Certified by most major carriers.
<b>SAFETY</b>	UL 60950, CSA 22.2 No. 60950, EN60950
<b>EMISSIONS/IMMUNITY</b>	CE, FCC Part 15 Class B, AS/NZS CISPR 22, EN55024, EN55022 Class B (WR44 models with VDSL are Class A)
<b>INDUSTRY</b>	E-Marking (72/245/EEC, 2009/19/EC); Automotive Non-Immunity (2004/104/ EC, 2005/49/EC, 2005/83/EC, 2006/28/EC); WR44 R also includes: ISO7637-2 Class C, EN 300 019-2-5 (Specification for environmental tests for ground vehicle installations - covers temperature, humidity, vibration and shock)

### WARRANTY

<b>PRODUCT WARRANTY</b>	5 years
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## ENTERPRISE SOFTWARE

## DESCRIPTION

### PROTOCOLS

HTTP, HTTPS, FTP, SFTP, SSL, SMTP, 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

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; VPN Tunnels included: 20 (DSL variants), 5 (non-DSL variants); Maximum VPN Tunnels available: 200; Cryptology: SHA-1, MD5, RSA; Encryption: DES, 3DES and AES up to 256-bit; Authentication: RADIUS, TACACS+, SCEP for X.509 certificates; Content Filtering (via 3rd party); MAC Address Filtering; VLAN support; Ethernet Port Isolation

### ROUTING/FAILOVER

IP pass-through; NAT, NATP with IP Port Forwarding; Ethernet Bridging; GRE; Multicast Routing; Routing Protocols: PPP, PPPoE, RIP (v1, v2) OSPF, SRI, BGP, iGMP routing (multicast); IPv6 (firmware upgradable); RSTP (Rapid Spanning Tree Protocol); IP Failover: VRRP, VRRP+TM; Automatic failover/failback to second GSM network/Standby APN

### OTHER PROTOCOLS

DHCP; Dynamic DNS client compatible with BIND9/No-IP/DynDNS; QoS via TOS/DSCP/WRED

### SPECIALTY/LEGACY PROTOCOLS

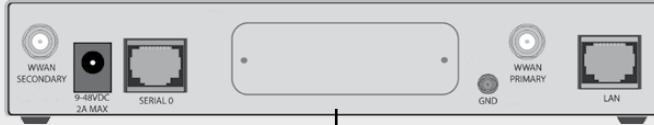
RealPort®; Modbus UDP/TCP to serial; X.25 including XOT, SNA/IP, TPAD and PAD; Protocol switch\*






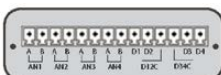

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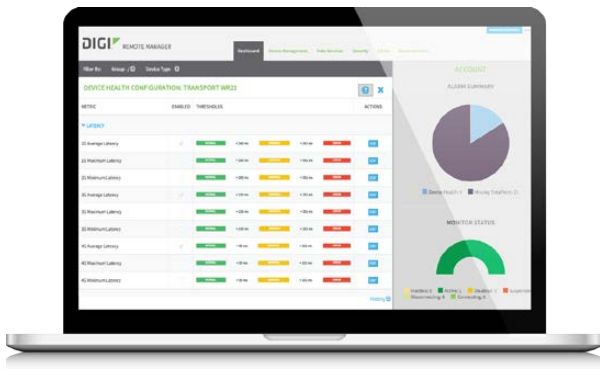
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<p><b>SYNC/ASYNC SERIAL PORT (S1)*</b></p>	 <p>1 x DB-25</p>	<p>X.21/RS-422/RS-232 synchronous/asynchronous serial port</p>
<p><b>ASYNC SERIAL PORTS (A3)</b></p>	 <p>3 x RJ-45</p>	<p>3x asynchronous RS-232 serial ports</p>
<p><b>PSTN (P1)*</b></p>	 <p>1 x RJ-45</p>	<p>PSTN interface that can be used to dial out and receive calls. A PPP session is created over which IP traffic can be sent and received.</p>
<p><b>ISDN (I1)*</b></p>	 <p>1 x RJ-45</p>	<p>ISDN Basic Rate Interface (BRI) which can be configured either as a TE (terminal endpoint) or as NT-1 (network termination). The option also includes an additional asynchronous serial port via a second RJ-45 port.</p>
<p><b>TELEMETRY 1 (T1)*</b></p>	 <p>1 x 14-pin terminal block</p>	<p>4 x Opto-isolated digital output ports and 1 x Opto-isolated digital input port. It also provides a relay I/O port, voltage monitoring port, and internal temperature monitoring. Fully programmable via Python for embedded Digi TransPort applications.</p>
<p><b>TELEMETRY 2 (T2)*</b></p>	 <p>1 x 14-pin terminal block</p>	<p>4 x Analog and 4 x Digital I/O ports fully programmable via Python for embedded Digi TransPort applications.</p>
<p><b>GPS (G1)*</b></p>	 <p>1x SMA</p>	<p>Fully-integrated GPS tracking. See main specifications area for details.</p>

\* Optional hardware. Lead time and/or minimum order quantity may apply. Contact Digi Sales for details.

# DIGI REMOTE MANAGER<sup>SM</sup>



## 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

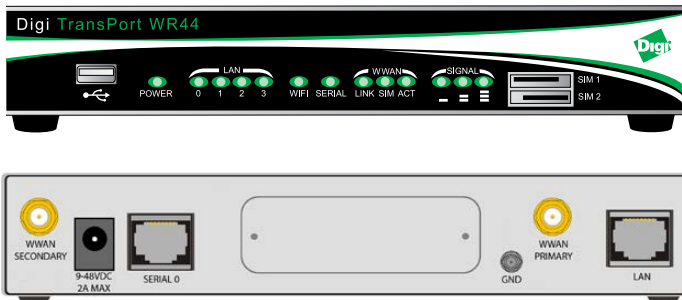
## INFRASTRUCTURE

- Hosted in multiple commercial-grade SAS 70 certified facilities in North America and Europe
- Superior availability, operating to 99.9% or greater
- Open APIs available to support application development

## SECURITY

- Certified SSAE-16 and ISO27001 facilities
- Member of the Cloud Security Alliance
- 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

## PRODUCT IMAGES



PART NUMBERS	DESCRIPTION
WR41-E100-NE1-SW	Digi TransPort WR41 - Cellular (GSM EDGE), Wi-Fi, Antennas & Power Supply included
WR41-E1A3-NE1-SW	Digi TransPort WR41 - Cellular (GSM EDGE), Wi-Fi, Async (3 RS-232 Ports), Antennas & Power Supply included
WR41-L100-NE1-SW	Digi TransPort WR41 - Cellular (4G LTE International), Wi-Fi, Antennas & Power Supply included (International)
WR41-L1A3-NE1-SW	Digi TransPort WR41 - Cellular (4G LTE International), Wi-Fi, Async (3 RS-232 Ports), Antennas & Power Supply included (International)
WR41-L500-NE1-SU	Digi TransPort WR41 - Cellular (4G LTE Multi-Carrier Software Defined, North America), Wi-Fi, Antennas & Power Supply included
WR41-L5A3-NE1-SU	Digi TransPort WR41 - Cellular (4G LTE Multi-Carrier Software Defined, North America), Wi-Fi, Async (3 RS-232 Ports), Antennas & Power Supply included
WR41-U900-NE1-SW	Digi TransPort WR41 - Cellular (HSPA+ Global), Wi-Fi, Antennas & Power Supply included (International)
WR41-U9A3-NE1-SW	Digi TransPort WR41 - Cellular (HSPA+ Global), Wi-Fi, Async (3 RS-232 Ports), Antennas & Power Supply included (International)

**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](http://www.digi.com/support).

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