

Digi TransPort® WR41

Enterprise Class Cellular Router

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



Overview

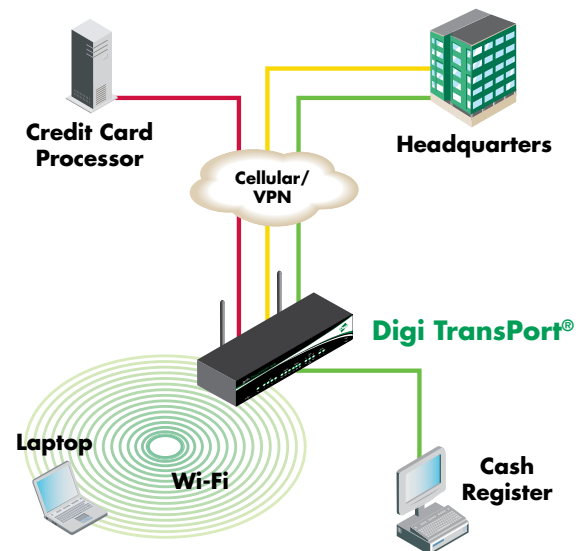
The Digi TransPort WR41 cellular router offers a robust communications solution with true enterprise class routing, security and firewall. This multifunction cellular router features a flexible design with integrated Wi-Fi access point (with multi SSID) / Client, USB, serial and single port Ethernet 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.

Application Highlight



Features/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



Digi TransPort 21



Digi Remote Management



Accessories



Specifications

Digi TransPort® WR41

Wireless Interfaces

WWAN**

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

Wi-Fi*

Standard	802.11b/g/n
Modes	Access point, Client and support for multiple SSID
Transmit Power	17 dBm ± 2 dBm
Receive Sensitivity	54 Mbps / -70 dBm and 11 Mbps / -83.5 dBm
Security	Open or shared key authentication; WEP (64- and 128-bit) encryption; WPA/WPA2 with RADIUS (WPA Enterprise and pre-shared keys)
Connectors	2 x 50 Ω RP-SMA (Center pin: male)

GPS*

Channels	50
Sensitivity	-163 dB
Protocol	NMEA 0183 V2.3 sentence output; +3.3 VDC active antenna drive; NMEA stream to local serial port or over TCP/IP
Navigation	Galileo ready
Augmentation	SBAS
Cold Start	< 27 seconds TTFF (90%)
Horizontal Accuracy	< 2.5 meters (90%)
Velocity Accuracy	0.1m/s
Connector	1 x 50 Ω SMA (Center pin: female)
Additional Features	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

Ports	1; Expansion cards available to increase serial ports
Standard	RS-232; Expansion cards available in RS-422/485
Async/Sync	Async; Expansion cards available in sync
DTE/DCE	DCE
Signal Support	TXD, RXD, RTS, CTS, DTR, DCD
Flow Control	Software (XON/XOFF), Hardware supported
COM Port Redirector	RealPort®
Connector	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.

Management	
Remote Management	Digi Remote Manager™ (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™
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)	
Ethernet Isolation	1.5 kV RMS
Serial Port Protection (ESD)	15 kV
Hazardous (Class 1 Div 2)	N/A
Conformal Coating	N/A
GSM/UMTS	PTCRB, NAPRD.03, GCF-CC, R&TTE, EN 301 511
CDMA/EV-DO	CDG TIA/EIA-690, CDG TIA/EIA-98-E
Cellular Carriers	Certified by most major carriers.
Safety	UL 60950, CSA 22.2 No. 60950, EN60950
Emissions/Immunity	CE, FCC Part 15 Class B, AS/NZS CISPR 22, EN55024, EN55022 Class B (WR44 models with VDSL are Class A)
Industry	E-Marking (72/245/EEC, 2009/19/EC): Automotive Non-Immunity (2004/104/ EC, 2005/49/EC, 2005/83/EC, 2006/28/EC); WR44R 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	
Product Warranty	5 years

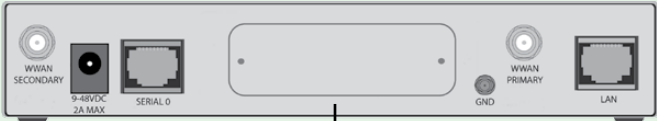
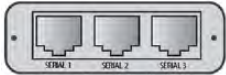
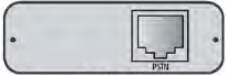
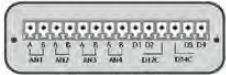
Enterprise Software	
Protocols	HTTP, HTTPS, FTP, SFTP, SSL, SMTP, SNMP (v1/v2c/v3), SSH, Telnet and CLI for web management; remote management via Digi Remote Manager; SMS management, protocol analyzer, ability to capture PCAP for use with Wireshark; DynDNS; Dynamic DNS client compatible with BIND9/No-IP/DynDNS
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: WR11/WR21/WR41/WR44/WR44 R/WR44 RR: 5, WR44-DSL: 20; Maximum VPN Tunnels available: WR11/WR21: 5, WR41: 50, WR44/WR44 R/WR44 RR: 200; 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; Ethernet Port Isolation
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); IPv6 (firmware upgradable); RSTP (Rapid Spanning Tree Protocol); IP Failover: VRRP, VRRP+TM; Automatic failover/failback to second GSM network/Standby APN; Verizon NEMO/DMNR for Primary Wireless Access
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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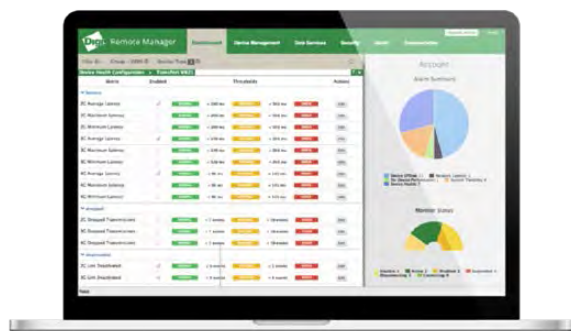
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Expansion Cards	Connector	Specification
		
Sync/Async Serial Port (S1)	 1 x DB-25	X.21/RS-422/RS-232 synchronous/asynchronous serial port
Async Serial Ports (A3)	 3 x RJ-45	3x asynchronous RS-232 serial ports
PSTN (P1)	 1 x RJ-45	PSTN interface that can be used to dial out and receive calls. A PPP session is created over which IP traffic can be sent and received.
ISDN (I1)	 1 x RJ-45	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.
Telemetry 1 (T1)	 1 x 14-pin terminal block	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.
Telemetry 2 (T2)	 1 x 14-pin terminal block	4 x Analog and 4 x Digital I/O ports fully programmable via Python for embedded Digi TransPort applications.
GPS (G1)	 1x SMA	Fully-integrated GPS tracking. See main specifications area for details.

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 & maintain
- Complete tasks for your entire device network in minutes
- Edit configurations & 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

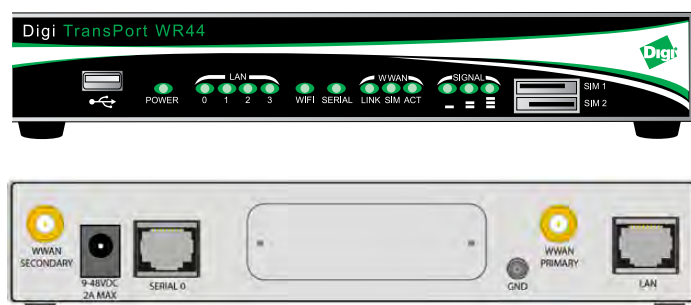
Infrastructure

- 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



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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**Digi International
Worldwide HQ**
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952-912-3444
www.digi.com

**Digi International
France**
+33-1-55-61-98-98
www.digi.fr

**Digi International
Japan**
+81-3-5428-0261
www.digi-intl.co.jp

**Digi International
Singapore**
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