

Digi TransPort® WR44

Enterprise Class Wi-Fi to Cellular Router

Enterprise class, commercial grade Wi-Fi to cellular router with flexible interface options ideal for mobile and transportation applications.



Overview

The Digi TransPort WR44 cellular router is an all-in-one mobile communications solution with true enterprise-class routing, security and firewall. This multifunction cellular router features a flexible design with integrated Wi-Fi access point, USB, serial and 4-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 family offers an advanced routing, security and firewall feature set including stateful inspection firewall and integrated VPN. Enterprise-class protocols incorporate BGP, 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 WR44 is ideal for transportation and mobile applications. Flexible power options include 11-58 VDC barrel or molex connectors for direct integration into vehicle applications. Digi Remote Manager™ provides easy setup, configuration and maintenance of large installations of Digi TransPort devices.

Related Products

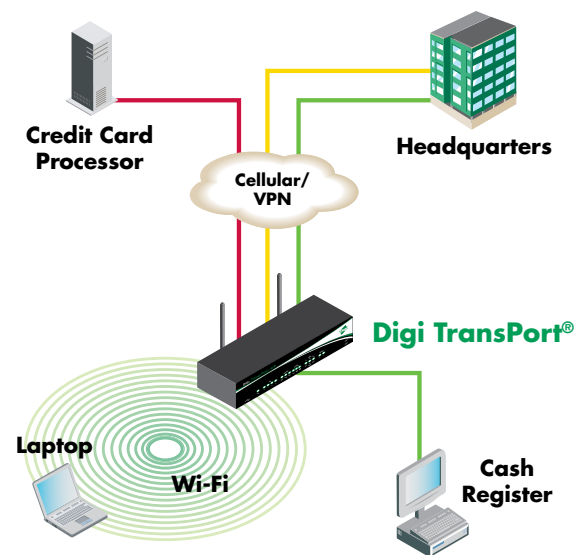


Digi Remote Manager



Accessories

Application Highlight



Features/Benefits

- Enterprise class cellular routers with advanced dynamic routing, security and firewall features
- High speed cellular interfaces: GSM GPRS/EDGE/ HSPA/CDMA EV-DO and 4G LTE
- Optional integrated 802.11 b/g Wi-Fi access point and 4-port Ethernet switch
- Flexible interfaces including serial (async/sync), GPS, USB and telemetry, with flexible DC power options
- Powerful integrated end user programming
- Digi Remote Manager software for easy setup, configuration, and maintenance
- Available in industrial and commercial grade platforms



Specifications

Digi TransPort® WR44

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 |
| LTE - North America (L6) | 700/850/1700(AWS)/1900MHz; 2G/3G fall back to 850/1900MHz; Transfer Rate (max): 50 Mbps Up, 100 Mbps Down |
| LTE - Verizon (L8) | 700/1700(AWS)MHz; No 2G/3G fall back; 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 |
| 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 | SIM slot cover plate optional |

Wi-Fi*

| | |
|----------------------------|--|
| Standard | 802.11b/g/n |
| Modes | Access point, Client and support for multiple SSID |
| Transmit Power | 20 dBm + 1.0/-1.5 dBm |
| Receive Sensitivity | 54 Mbps / <-72 dBm and 11 Mbps / -90 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, DSR, RI |
| Flow Control | Software (XON/XOFF), Hardware supported |

* 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 +50° 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® WR44

Wired Interfaces

Serial (Continued)

| | |
|---------------------|-------------|
| COM Port Redirector | RealPort® |
| Connector | DB-9 female |

Ethernet

| | |
|--------------------------|---|
| Ports | 4 |
| 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 | Input 4 - 28 VDC / Output: 28 VDC 50 mA max |
| Connector | 4-pin Molex (1 pin for input; 1 pin for I/O; the other 2 pins are used for DC power) |

USB

| | |
|-----------|--------------------|
| Ports | 1 |
| Standard | USB 2.0 |
| Signaling | Full- or low-speed |
| Connector | Type A |

DSL*

| | |
|------------|---|
| Technology | VDSL2, ADSL2+, ADSL2, ADSL |
| Standard | Option of Annex A/M or B |
| Connector | RJ-11 |
| Protocol | RFC 2364 PPPoA, RFC 2516 PPPoE, RFC 2684 Bridged Ethernet, RFC 1483 Routed IP (all either LLC or VC-Mux); PPP and ATM PVC support |

Other

| | |
|-----------------|--|
| Expansion Cards | Optional expansion cards available for GPS, fleet, telemetry (digital/analog I/O), ISDN/PSTN, serial and DialServ. |
|-----------------|--|

Software

| | |
|----------------------------------|---|
| 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 | 128 MB NAND Flash/64 MB DDR2 SDRAM |

Power

| | |
|------------------|---|
| Input | 9 – 36 VDC |
| Consumption | 15W max, 8.5W typical |
| Connector | Locking barrel and 4-pin terminal block (2 pins are used for power; the other 2 pins are used for I/O). |
| 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 |

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Specifications

Digi TransPort® WR44

| Power | |
|------------------------------|--|
| Dimensions (L x W x H) | WR44: (non-DSL variants): 5.7 in x 8.3 in x 1.6 in (145 mm x 210 mm x 40 mm) WR44: (DSL variants): 5.7 in x 10.4 in x 1.6 in (145 mm x 264 mm x 40 mm) |
| Weight | WR44: (non-DSL variants): 1.98 lb (0.9 kg) WR44: (DSL variants): 2.25 lbs (1 kg) |
| Status LEDs | Power, LAN, Wi-Fi, Serial/DSL, WWAN (Link, Act, SIM), Signal strength |
| Material/Rating**** | Industrial (Metal)/ IP30 |
| Mounting | Brackets for wall mount & DIN rail sold separately |
| Environmental | |
| Operating Temperature ***‡ | Standard temp variants: 0° C to +40° C; Extended temp optional (-40° C to +60° C (non-Wi-Fi variants); -20° C to +60° C (Wi-Fi variants)) |
| Storage Temperature | -40° C to +85° C |
| Relative Humidity | 0% to 95% (non-condensing) @ 25° C |
| Ethernet Isolation | 1.5 kV RMS |
| Serial Port Protection (ESD) | 15 kV |
| Hazardous (Class 1 Div 2) | N/A |
| Conformal Coating | N/A |
| Approvals | |
| 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); (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: 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, NAT 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* |

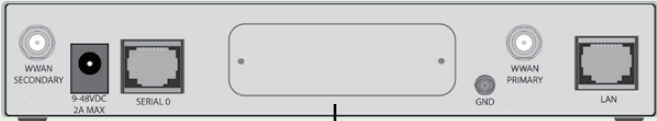

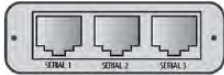
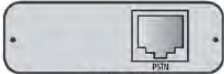


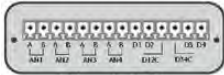

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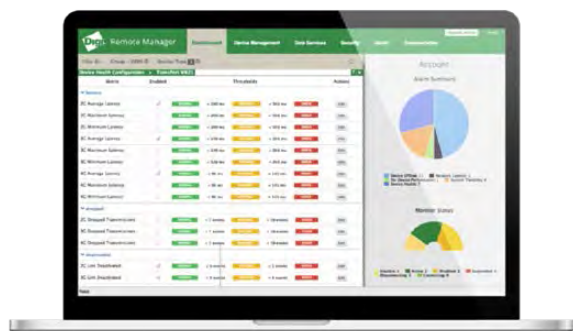
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‡ Product specifications for operating temperature updated on February 5, 2015 and applies to current versions of the product currently in the field.

| Expansion Cards | Connector | Specification |
|---|--|---|
|  | | |
| Sync/Async Serial Port (S1) |  <p>1 x DB-25</p> | X.21/RS-422/RS-232 synchronous/asynchronous serial port |
| Async Serial Ports (A3) |  <p>3 x RJ-45</p> | 3x asynchronous RS-232 serial ports |
| PSTN (P1) |  <p>1 x RJ-45</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. |
| ISDN (I1) |  <p>1 x RJ-45</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. |
| Telemetry 1 (T1) |  <p>1 x 14-pin terminal block</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. |
| Telemetry 2 (T2) |  <p>1 x 14-pin terminal block</p> | 4 x Analog and 4 x Digital I/O ports fully programmable via Python for embedded Digi TransPort applications. |
| GPS (G1) |  <p>1x SMA</p> | 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

Line Art

Digi TransPort WR44 (DSL variant)



Digi TransPort WR44



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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