

# Digi TransPort® WR Family

Enterprise Class Cellular Routers

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



## Overview

The Digi TransPort WR family of cellular routers offers an all-in-one mobile communications solution with true enterprise class routing, security and firewall. These multifunction cellular routers feature a flexible design with optional integrated Wi-Fi access point (with multi SSID) / Client, USB, serial and 1-, 2- or 4-port Ethernet switch. Additional configuration options include multiple serial ports (async or sync), GPS or telemetry I/O.

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 WR routers are ideal for transportation, POS, energy, medical, financial and digital signage as well as cellular backup and remote device connectivity applications.

Management software options include Digi Remote Manager and iDigi Manager Pro™.

### Related Products



VPN Concentrators

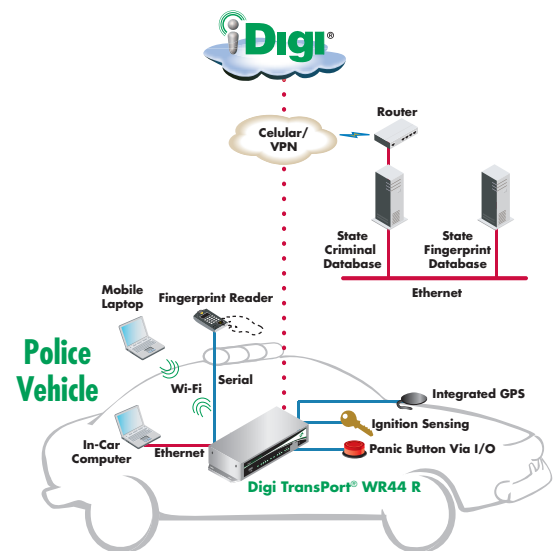


Digi Remote Management



Accessories

### Application Highlight



### Features/Benefits

- Enterprise class cellular routers with advanced dynamic routing, security and firewall features
- High speed cellular interfaces: GSM EDGE, HSPA, HSPA+ and CDMA EV-DO
- Optional integrated 802.11b/g (WR44/44 R only) or 802.11b/g/n (WR41 only) and 1-, 2- or 4-port Ethernet switch
- Flexible interfaces including serial (async/sync), GPS, USB, CAN Bus and telemetry I/O, with flexible DC power options
- Powerful integrated end user programming
- Remote management software download configuration management with iDigi Manager Pro



Specifications		Digi TransPort® WR44/WR44 R	Digi TransPort® WR41	Digi TransPort® WR21
<b>Interfaces</b>				
<b>Serial</b>				
Async Port Type	1 DB-9 RS-232 built-in; 3 RJ-45 RS-232 (option)	1 RJ-45 RS-232 built-in; 3 RJ-45 RS-232 (option)	1 DB-9 RS-232, RS-232/422/485 (option)	
Sync Port Type	1 Sync/Async DB-25 RS-232/422/485 (option)		N/A	
Signal Support	TXD, RXD, RTS, CTS, DTR, DSR, DCD, RI (No DSR/RI for RJ-45 ports on WR41 & 3 port serial card; RS-422/485 and sync signals available)			
Flow Control	Software (XON/XOFF), Hardware supported			
COM Port Redirector	Digi patented RealPort®			
<b>Ethernet</b>				
Ports (Auto MDI/MDX)	4-port auto switch (configurable non-switch/mini-switch modes)	1 Ethernet port	1 Ethernet or 2 Ethernet option (configurable non-switch/switch mode)	
Specifications	IEEE 802.3 10/100 Base-T (auto-sensing) Full or Half duplex			
<b>Other</b>				
Wi-Fi (option)	802.11b/g access point and client mode (b/g/n option for WR41); Open or shared key authentication; WEP (64 and 128 bit) encryption; WPA/WPA2 with Radius (WPA Enterprise and pre-shared keys); Support for multiple access point mode; 2 x 50 Ω male reverse SMA antenna connector (external); Transmit power: 17 dBm ± 2 dBm; Receive sensitivity: 54 Mbps OFDM, 10% PER, -70 dBm, 11 Mbps CCK, 8% PER, -83.5 dBm		N/A	
GPS (option)	50 channel GPS engine (-163 dB sens.); NMEA 0183 V2.3 sentence output; 50 Ω SMA antenna connector with +3.3 VDC active antenna drive; NMEA stream to local serial port or over TCP/IP; Galileo ready		N/A	
Telemetry (option)	Telemetry 1: 4x Opto-isolated digital output ports, 1x Opto-isolated digital input port, 1x Relay I/O port, 1x Voltage monitoring port, Internal temperature monitoring Telemetry 2: 4x Isolated analog I/O ports, 4x Non-isolated digital I/O ports		N/A	
USB Host Port	1 Type A connector for expansion; Support for full or low speed (high speed on WR21)			
Miscellaneous (option)	Fleet I/O (CAN Bus, GPS, telemetry); ISDN (BRI) - v.120, X.75, v.110; DialServer (dial tone simulator); PSTN		N/A	
<b>General Features</b>				
Status LEDs	DTE, Ethernet, Power on, Cellular link/activity, Signal strength, Wi-Fi			
Mounting	Bulkhead mount, Wall mount and DIN rail options available			
Dimensions (L x W x H)	5.7 in x 8.3 in x 1.6 in (145 mm x 210 mm x 40 mm)	4.7 in x 6.8 in x 1.3 in (12 cm x 17.3 cm x 3.2 cm)	3.9 in x 5.2 in x 1.3 in (10 cm x 13.1 cm x 3.2 cm)	
Weight	1.98 lb (0.9Kg)	1.27 lb (0.53 kg)	1.08 lb (0.49 kg)	
Other	Standard dual SIM (SIM protection cover option); Conformal coating (option)		Standard dual SIM (SIM protection cover option)	
<b>RF Features</b>				
<b>GSM Models</b>				
EDGE	GPRS Class 10/EDGE class 10, Quadband 850/900/1800/1900 MHz			
HSDPA/HSUPA/UMTS	850/1900/2100 or 900/2100 MHz with Rx Diversity			
HSPA+	850/900/1900/2100 MHz with Rx Diversity			
Antenna	HSPA/HSPA+/UMTS: 2 X 50 Ω SMA male antennas, EDGE: 1 X 50 Ω SMA male antenna			
<b>CDMA Models</b>				
CDMA/EV-DO Rev A	Dualband 800/1900 MHz with Rx Diversity; Optional multi-mode GSM/EV-DO Gobi support; 450 MHz, 3.1 Mbps down / 1.8 Mbps up, R-UIM support			
Antenna	2 x 50 Ω SMA male antennas			
<b>Power Requirements</b>				
Power Input	11-58 VDC	8-48 VDC	9-30 VDC	
Power Supply	100-240 VAC 50/60 Hz with barrel connector, Optional Molex connector with bare wire leads	100-240 VAC 50/60 Hz with barrel connector, Optional barrel connector with bare wire leads	100-240 VAC 60 Hz with locking barrel connector or terminal block connector	
Power Consumption	15W max, 8.5W typ	6W max, 4W typ	6W max, 4W typ	
<b>Environmental</b>				
Operating Temperature	WR44: 0° C to +60° C WR44 Extended Temp/WR44R: -40° C to +75° C; -20° C to +75° C (Wi-Fi models only) Reduced cellular performance may occur above +60° C	-20° C to +55° C; -25° C to +70° C with reduced cellular performance Wi-Fi models: -5° C to +55° C; -10° C to +70° C with reduced performance	-35° C to +75° C with reduced cellular performance; Reduced cellular performance may occur above +60° C	
Relative Humidity	20% to 95% (non-condensing)			
Ethernet Isolation	1.5 kV			
Serial Port Protection (ESD)	15 kV			

Specifications	Digi TransPort® WR44/WR44 R	Digi TransPort® WR41	Digi TransPort® WR21
Approvals			
Mobile Certifications - GSM/UMTS	PTCRB, NAPRD.03, GCF-CC, R&TTE, EN 301 511		
Mobile Certifications - CDMA/EV-DO	CDG TIA/EIA-690, CDG TIA/EIA-98-E		
Wireless Carrier Certifications	Certified by most major carriers. See www.digi.com for current listing.		
Safety	UL 60950, CSA 22.2 No. 60950, EN60950		
Emissions/Immunity	CE, FCC Part 15 Class B (FCC identifier GGL-R1902G), AS/NZS CISPR 22, EN55024, EN55022 Class A, E-Mark		
Vehicle Related Certifications	E-Marking (72/245/EEC, 2009/19/EC) Automotive Non-Immunity (2004/104/EC, 2005/49/EC, 2005/83/EC, 2006/28/EC)		N/A

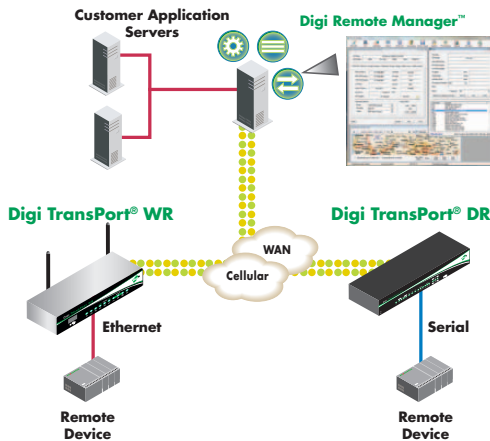
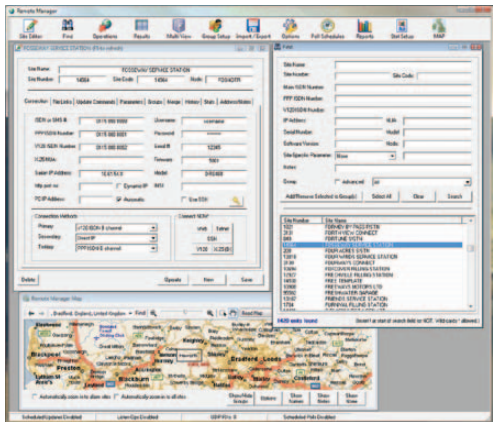
Software Options	Digi TransPort® WR21	Digi TransPort WR21, Digi TransPort WR44/44 R
Features	Standard	Enterprise (includes Standard feature set)
Local Programming	Python	
Protocols	HTTP, HTTPS, FTP, SFTP, SSL, SMTP, iDigi SNMP, SNMP (v1/v2c/v3), SSH, Telnet and CLI for web management; remote management via software tool (option); SMS management, protocol analyzer, ability to capture PCAP for use with Wireshark; DynDNS	Same as Standard plus iDigi; Dynamic DNS client compatible with BIND9/No-IP/DynDNS
Security/Firewall/VPN	IP Filtering	RADIUS TACACS+, SSL, SSLv2, SSLv3, FIPS 197, L2TP, (5 tunnels included); IPsec with IKEv1, IKEv2, ISAKMP; DES, 3DES and AES up to 256-bit encryption; SCEP for X.509 certificates, Open VPN client and server, PPTP; IPsec/PPP/L2TP VPN Server support; Stateful inspection firewall with scripting; Content Filtering (via 3rd party)
Routing	NAT, NATP	Bridging, NAT/NAT-Traversal, NAPT forwarding; PPP, PPPoE, GRE; IP Routing Protocol: PPP, GRE, RIP (v1 & v2) OSPF, SRI, BGP; IP Failover: VRRP, VRRP+TM; VLAN support; STP (Spanning Tree Protocol); DHCP; Automatic failover/failback to second GSM network/Standby APN; Optional IPv6; iGMP routing (multicast); IP pass-through (advanced)
Specialty Protocol	RealPort	RealPort; Modbus UDP/TCP to serial; Legacy protocols (X.25 (including XOT), SNA/IP, TPAD and PAD); Protocol switch

## About Device Management

### Features

- View of all remote devices and their connection status
- Automatic registration of newly connected devices
- Remote device configuration
- Actions include device grouping and scheduling of operations
- Monitoring of user specified events
- Device statistic and report generation
- Alarm generation and alerting
- Secure access to all devices from web browser, anywhere
- Remote reboot of device and default reset
- Remote device management with iDigi Manager Pro, a Digi-hosted device management software

## Easy Remote Configuration and Management

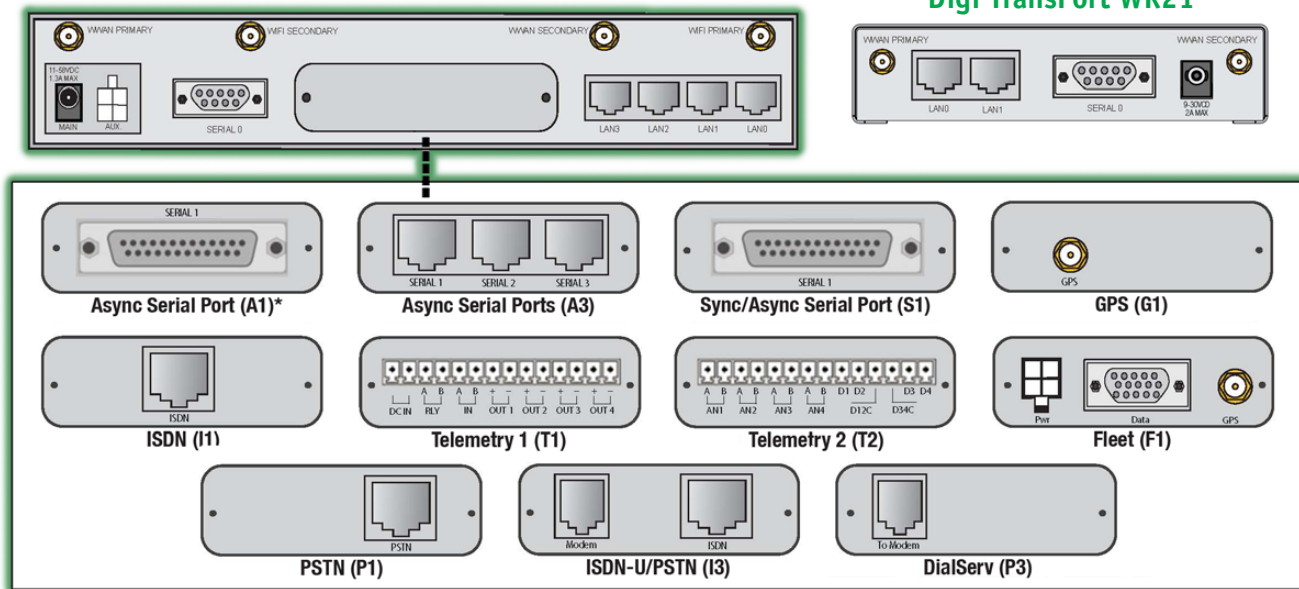


## Hardware Interface Population Options for Digi TransPort® WR41/WR44 Products

Interface Name	Interface Type	Technical Description
Sync/Async Serial Port (S1)	1 DB-25	X.21/RS422/RS232 synchronous/asynchronous serial port
Async Serial Port (A1)*	1 DB-25	Asynchronous serial port
Async Serial Ports (A3)	3 X RJ-45	Asynchronous 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. Includes: • 1x PSTN cable
DialServ (P3)	1 x RJ-11 (FXS)	Dial tone simulator to emulate local telco.
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.
ISDN-U/PSTN (I3)	1 x RJ-11, 1 x RJ-45	ISDN-U interface suitable for the USA plus PSTN interface. Can be configured for Bell-103 modulation in leased line mode as well as a normal PSTN interface.
Telemetry 1 (T1)	1 x 14 pin terminal block	4 opto-isolated digital input ports and 1 opto-isolated digital output ports. It also provides a relay I/O port, a voltage monitoring port and internal temperature monitoring. Fully programmable via Python for embedded Digi TransPort applications. Includes: • 1 x mating connector
Telemetry 2 (T2)	1 x 14 pin terminal block	4 Analog/4 Digital I/O fully programmable via Python for embedded Digi TransPort applications. Includes: • 1 x mating connector
GPS (G1)	1 x SMA	Internal GPS capability Includes: • 1 x magnetic-mount antenna
Fleet (F1)	1 x 15-pin, 1 x SMA, 1 x 4-pin	Flexible transportation/fleet focused applications requiring CAN bus, J1708, GPS, Non-isolated digital I/O, Ignition Sense, 3-Axis accelerometer and power control of Digi TransPort interfaces. Fully programmable via Python for embedded Digi TransPort applications. Includes: • 1x magnetic-mount antenna • 1x power cord • 1x telemetry cable

### Digi TransPort WR41/WR44

### Digi TransPort WR21



Digi TransPort WR44 and WR41 use the same hardware interface expansion slot.  
\* A1 option for Digi TransPort WR41 only

Visit [www.digi.com](http://www.digi.com) for part numbers.

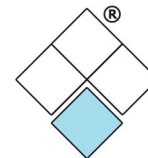
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