ENTERPRISE-CLASS
CELLULAR ROUTERS
FOR RAIL

DIGI TRANSPORT® WR44 RR

Rugged, all-in-one cellular router with 3G/4G GPS. Designed for use on-board rail vehicles.

Digi TransPort WR44 RR is a rugged enterprise-class cellular router designed for rail environments. Its rail industry ratings, versatility, security features and performance make it ideal for applications such as Positive Train Control (PTC), wayside device communications and on-board passenger Internet access.

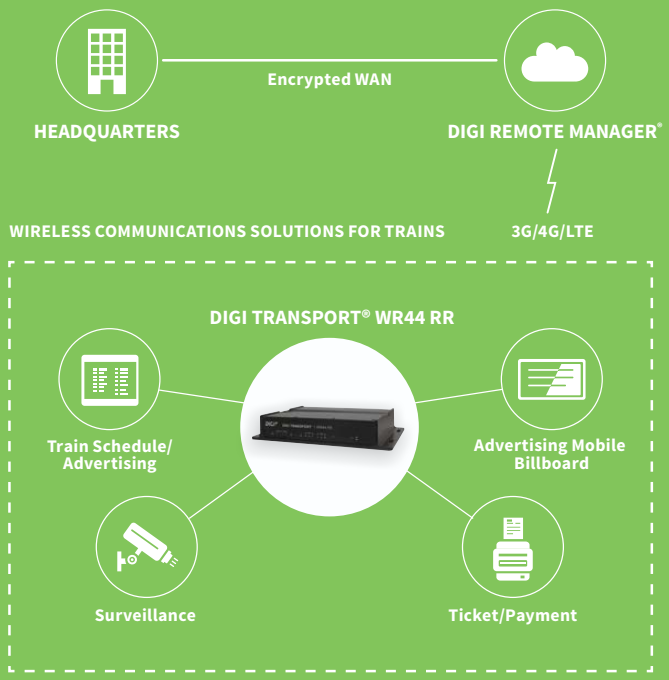
Digi TransPort WR44 RR provides a reliable primary high speed cellular network connection or can act as a secure backup connection to the existing railroad network. It features a flexible communications design with 3G/4G multicarrier cellular, plus integrated Wi-Fi ac/b/g/n; a/n access point, serial and 4-port Ethernet switch. It also features full on-board train certifications, including AAR S-9401 and EN50155. Communications interfaces include hardened connectors, including M12 for Ethernet and serial, as well as TNC connectors for antenna connections.

Digi management solutions provide easy setup, configuration and maintenance of large installations of remote Digi TransPort devices. Digi Remote Manager® offers web-based device management for remote Digi cellular routers, gateways and third-party devices.

BENEFITS

- Heavy-duty enclosure and connectors designed for shock and high vibration environments
- Enterprise-class routing, VPN and firewall capabilities
- Optional integrated 802.11 ac/b/g/n; a/n Wi-Fi access point
- Dual SIM for carrier redundancy
- Cellular to Wi-Fi autoswitch
- Full on-board train certs including AAR S-9401 and EN50155
- Digi Remote Manager® provides mass configuration, device management and troubleshooting tools

APPLICATION EXAMPLE



RELATED PRODUCTS

Digi TransPort® WR11 XT

Digi TransPort® WR21

Digi TransPort® WR44 R

Accessories

Digi Remote Manager®

SPECIFICATIONS	Digi TransPort® WR44 RR
WIRELESS INTERFACES	
CELLULAR*	
LTE - NORTH AMERICA/EMEA (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, 150 Mbps up Approvals: PTCRB, AT&T, Verizon, Vodafone (pending)
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, 150 Mbps up
CONNECTOR	(2) 50 Ω TNC (Center pin: female)
SIM SLOTS	(2) Mini-SIM (2FF)
SIM SECURITY	SIM slot cover plate
WI-FI**	
STANDARD	802.11 ac/a/b/g/n 2.4/5 GHz
MODES	Access point, client and support for multiple SSID
TRANSMIT POWER	16 – 22 dBm, +/- 2 dB
RECEIVE SENSITIVITY	71 – 93 dBm, +/- 2dB
SECURITY	Open or shared key authentication; WEP (64- and 128-bit) encryption; WPA/WPA2 with RADIUS (WPA Enterprise and pre-shared keys)
CONNECTORS	(2) 50 Ω RP-TNC (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) 50 Ω RP-TNC (Center pin: male)
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) 5-pin A-coded M12 female; DCE
STANDARD	RS-232
SIGNAL SUPPORT	TXD, RXD, RTS, CTS, GND
FLOW CONTROL	Software (XON/XOFF), hardware supported
ETHERNET	
PORTS	(4) 10/100 Mbps (auto-sensing)
CONNECTOR	Option of 4-pin D-coded M12 female or 8-pin A-coded M12 female
I/O	
DIGITAL I/O	Input: 4 - 28 VDC; Output: 28 VDC 50 mA max
CONNECTOR	4-pin A-coded M12 male (2 pins are used for I/O; the other 2 pins are used for DC power)

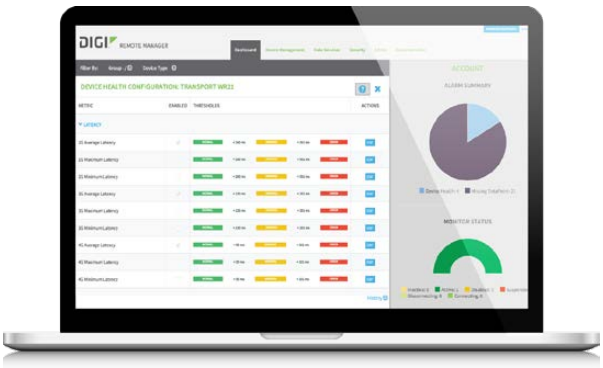
* Transfer rates are network operator dependent.
** Optional hardware.

SPECIFICATIONS	Digi TransPort® WR44 RR
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
MEMORY	128 MB NAND Flash/64 MB DDR2 SDRAM
POWER	
INPUT	9 – 36 VDC
CONSUMPTION	15W max, 8.5W typical
CONNECTOR	4-pin A-coded M12 male (2 pins are used for power; the other 2 pins are used for I/O)
DC POWER CORD**	4-pin A-coded M12 female to bare wire
PHYSICAL	
DIMENSIONS (L X W X H)	11.5 in x 6.65 in x 2.05 in (29.2 cm x 16.9 cm x 5.2 cm)
WEIGHT	5.7 lbs (2.6 kg)
STATUS LEDS	Power, LAN, Wi-Fi, Serial, WWAN (Link, Act, SIM), Signal strength
MATERIAL/RATING***	Aluminium alloy/ IP54
MOUNTING	(4) mounting slots on the unit's flange
ENVIRONMENTAL	
OPERATING TEMPERATURE	-40° C to +70° C; (Reduced cellular performance may occur above +60° C)
STORAGE TEMPERATURE	-40° C to +85° C
RELATIVE HUMIDITY	0% to 95% (non-condensing) @ 25° C
ETHERNET ISOLATION	2 kV RMS
SERIAL PORT PROTECTION (ESD)	10 kV
CONFORMAL COATING	Available upon request
APPROVALS	
CELLULAR	PTCRB, NAPRD.03, GCF-CC, R&TTE, EN 301 511
CDMA/EV-DO	CDG TIA/EIA-690, CDG TIA/EIA-98-E
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
INDUSTRY	EN50155 (all variants); AAR S-9401 (select variants)
WARRANTY	
PRODUCT WARRANTY	3 years

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	IP filtering, Stateful inspection firewall with scripting, address and port translation; VPN: IPSec with IKEv1, IKEv2, NAT Traversal; SSL, SSLv2, FIPS 197, Open VPN client and server; PPTP, L2TP; (5) VPN tunnels (upgradable to a maximum of 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
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); 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; Modbus UDP/TCP to serial; X.25 including XOT, SNA/IP, TPAD and PAD; Protocol switch; Modbus bridging for connecting diverse field assets

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

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

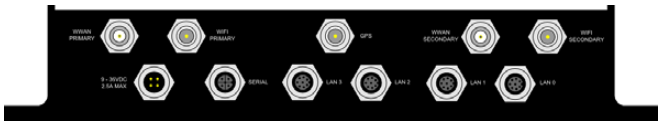
INFRASTRUCTURE

- 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 and ISO27001 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

PRODUCT IMAGES



PART NUMBERS	DIGI TRANSPORT WR44 RR
WR44-M8G4-AE1-MD	4G LTE North America/EMEA, Wi-Fi (802.11ac)
WR44-L9G4-AE1-MD	4G LTE LATAM/ANZ, Wi-Fi (802.11ac)

PART NUMBERS	ACCESSORIES*
76000983	WR44 RR Accessory Kit (Power Cord, Serial Cable, and Ethernet M12 Cables)

***Sold separately, unless otherwise noted.**

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Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
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Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.

Как с нами связаться

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