COMPACT ENTERPRISE CLASS 3G/4G/LTE ROUTER

DIGI TRANSPORT® WR21

Compact, flexible, low-cost 3G/4G/LTE enterprise router for remote and mobile networking applications

Digi TransPort WR21 is a full-featured cellular router offering the flexibility to scale from basic connectivity applications to enterprise class routing and security solutions. With its high-performance architecture, Digi TransPort WR21 provides primary and backup WWAN connectivity over 3G/4G/LTE. The platform includes software selectable multi-carrier and regional LTE variants.

Flexible power and connectivity options, along with extended temperature ranges make Digi TransPort WR21 a versatile product for both commercial and industrial environments.

The Digi TransPort WR21 supports enterprise software features for advanced security (stateful firewall, MAC filtering, VPN), redundancy (VRRP+, SureLink®), and management (SNMP, event logging, analyzer trace, and QOS), enabling the product to be used in PCI or NERC-CIP compliant applications.

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

- Compact, low-cost, flexible cellular routing platform with enterprise feature set
- Enterprise software with advanced routing protocols, VPN, and stateful firewall
- High-performance architecture, flexible power and extended operating temperature
- 3G/4G cellular interface supporting LTE and HSPA+ networks worldwide
- Dual SIMs and Digi SureLink™ provide redundant connection
- Digi Remote Manager software for easy setup, configuration, and maintenances

RELATED PRODUCTS

Digi TransPort® WR11 XT

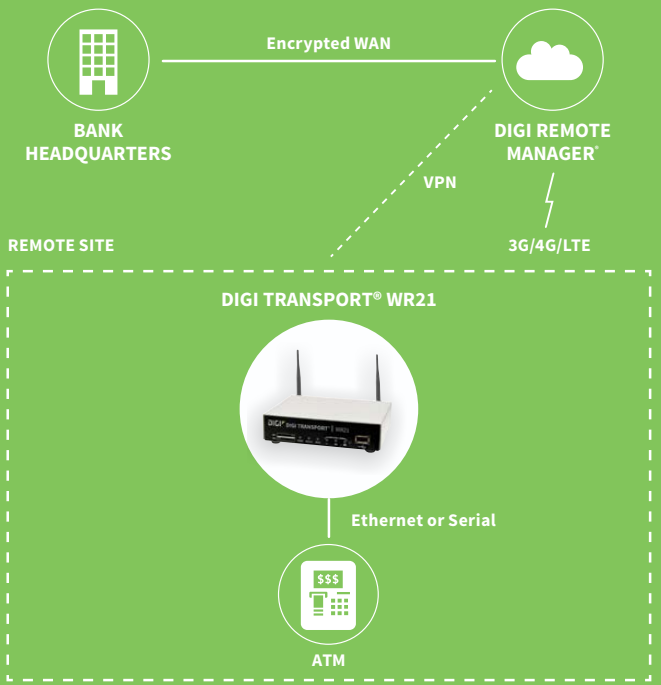
Digi TransPort® WR31

Digi TransPort® WR44 R

Accessories

Digi Remote Manager®

APPLICATION EXAMPLE



SPECIFICATIONS	Digi TransPort® WR21
WIRELESS INTERFACES	
CELLULAR*	
LTE - NORTH AMERICA (M5)	LTE CAT 4: 700(B12,13)/850(B5)/AWS(B4)/1900(B2) 3G HSPA+: 850/1900 MHz Transfer rate (max): 150 Mbps down, 50 Mbps up Approvals: PTCRB, AT&T, Telus (pending)
LTE - EMEA/APAC (M7)	LTE CAT 4: 800(B20)/900(B8)/1800(B3)/2100(B1)/2600(B7) HSPA: 900/2100 MHz EDGE: 900/1800 MHz Transfer rate (max): 150 Mbps down, 50 Mbps up Approvals: Vodafone (pending)
LTE 450 - EMEA/APAC (M2)	LTE CAT 3: 450(B31)/800(B20)/1800(B3)/2600 (B7) HSPA+: 900/2100 MHz EDGE: 900/1800 MHz Transfer rate (max): 100 Mbps down, 50 Mbps up
GLOBAL HSPA+ (U9)	3G HSPA+: 850/900/1700AWS/1900/2100 MHz 2G EDGE/GPRS: 850/900/1800/1900 MHz Transfer rate (max): 21 Mbps down, 5.76 Mbps up Approvals: PTCRB, Vodafone
EMEA CDMA EV-DO (D5)	3G EVDO Rev B: 450 MHz 2G 1XRTT: 450 MHz Transfer rate (max): 14.7Mbps down, 5.4Mbps up
GSM-R (R5)	900/1800/1900 MHz (TRM-5); GPRS Class 10; Transfer rate (max): 42.8 Kbps up, 85.6 Kbps down
CONNECTORS	(2) 50 Ω SMA (center pin: female)
SIM SLOTS	(2) Mini-SIM (2FF)
SIM SECURITY	Optional SIM slot cover plate
GPS**	
CHANNELS	12 channel, continuous tracking
SENSITIVITY	Tracking1: -161 dBm; Acquisition2 (Assisted, non-LTE): -158 dBm; Acquisition (Assisted, LTE): -153 dBm; Acquisition (Standalone): -145 dBm
PROTOCOL	NMEA 0183 V3.0
COLD START	< 0.2 m/s
HORIZONTAL ACCURACY	< 2 m (50%); < 5 m (90%)
VELOCITY ACCURACY	< 0.2 m/s
OTHER	
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) DB-9; DCE
DTE/DCE	DCE
SIGNAL SUPPORT	TXD, RXD, RTS, CTS, DTR, DCD, DSR, RI
FLOW CONTROL	Software (XON/XOFF), hardware supported
ETHERNET	
PORTS	(2) RJ-45; 10/100 Mbps (auto-sensing)
USB	
PORTS	(1) USB 2.0 Type A

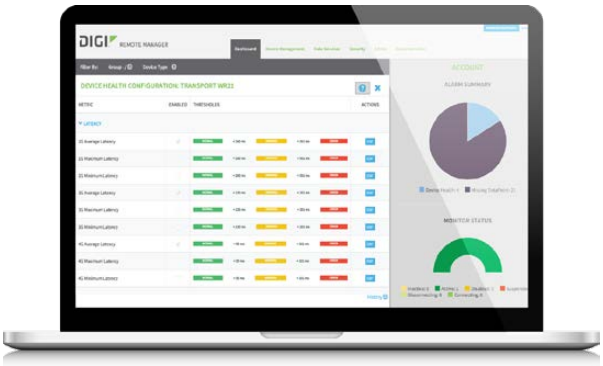
* Transfer rates are theoretical and network operator dependent.
** Optional hardware.

SPECIFICATIONS	Digi TransPort® WR21
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/128 MB DDR2 SDRAM
POWER	
INPUT	9 – 30 VDC, 18W min power source required
CONSUMPTION	4W typical (Idle); 12W typical (Peak Tx/Rx)
CONNECTOR	Depending on model: Locking barrel or screw-down removeable terminal block
PHYSICAL	
DIMENSIONS (L X W X H)	3.9 in x 5.2 in x 1.3 in (100 mm x 131 mm x 32 mm)
WEIGHT	1.08 lb (0.49 kg)
STATUS LEDS	Power, Service, WWAN, 3x signal strength
ENCLOSURE MATERIAL/RATING	Industrial (Metal)/ IP30
MOUNTING	Brackets for wall mount & DIN rail sold separately
ENVIRONMENTAL	
OPERATING TEMPERATURE***	-35° C to +70° C (Reduced cellular performance may occur above +50° C)
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)	Models with Serial (RS-232/422/485) compliant to ANSI/ISA-12.12.01-2015
APPROVALS	
CELLULAR	PTCRB, NAPRD.03, GCF-CC, R&TTE, EN 301 511
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
WARRANTY	
PRODUCT WARRANTY	5 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	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 50); Maximum VPN tunnels available: 5; 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); 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; Modbus UDP/TCP to serial; X.25 including XOT, SNA/IP, TPAD and PAD; Protocol switch; Modbus bridging for connecting diverse field assets

*** Standard temperature power supplies may reduce temperature range.

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 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

WR21 - FRONT

WR21 - RS-232/422/485 Models

WR21 - RS-232 Models

PART NUMBERS	DIGI TRANSPORT WR21
WR21-M52B-DE1-SB	4G LTE North America, RS-232, antennas and power supply not included
WR21-M72B-DE1-SB	4G LTE EMEA/APAC, RS-232, antennas and power supply not included
WR21-M22B-DE1-SB	4G LTE EMEA/APAC (450MHz), RS-232, antennas and power supply not included
WR21-U92B-DE1-SB	HSPA+ Global, RS-232, antennas and power supply not included
WR21-D52A-DE1-TA	CDMA 450MHz, RS-232/422/485, Class 1 Division 2 (C1D2), antennas included, power supply not included
WR21-R32A-DE1-TB	GSM-R, RS-232/422/485, Class 1 Division 2 (C1D2), antennas and power supply not included

PART NUMBERS	ACCESSORIES*
76002059	Accessory Kit DC - Includes DC power cable, ethernet cable and antennas (2)
76002060	Accessory Kit AC Std Temp - Includes AC/DC power supply (0° C to 40° C), ethernet cable and antennas (2)
76002061	Accessory Kit AC Extd Temp - Includes AC/DC power supply (-30° C to +70° C), ethernet cable and antennas (2)

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

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.

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