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

APPLICATION EXAMPLE
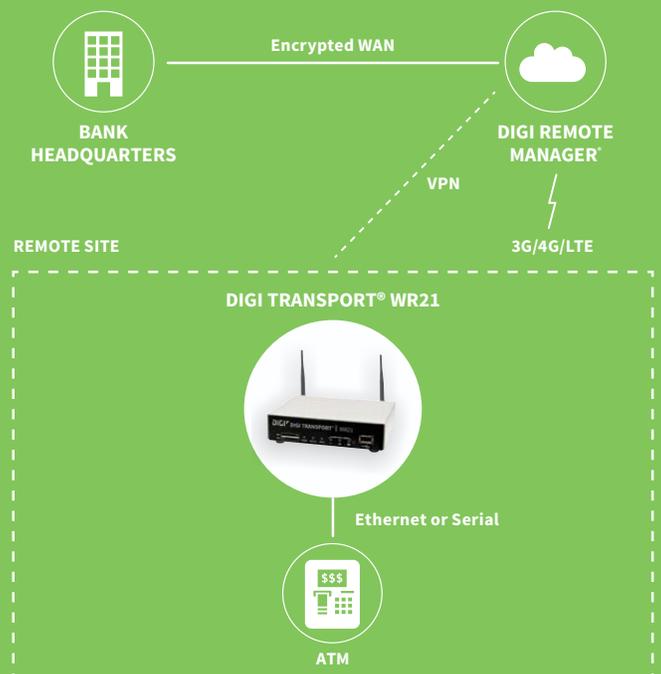
RELATED PRODUCTS

Digi TransPort®
WR11 XT

Digi TransPort®
WR31

Digi TransPort®
WR44 R

Accessories

Digi Remote
Manager®

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, Verizon, 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
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 (not upgradable); 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®

DIGI REMOTE MANAGER®
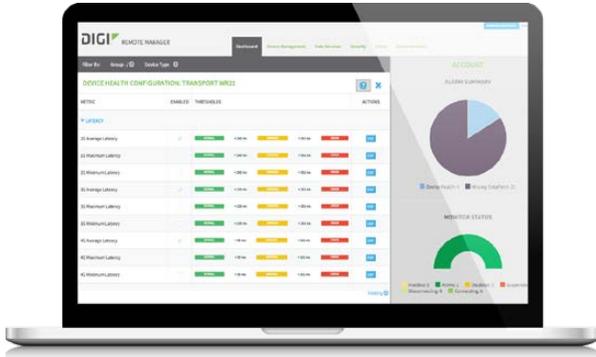
CAPABILITIES

– 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
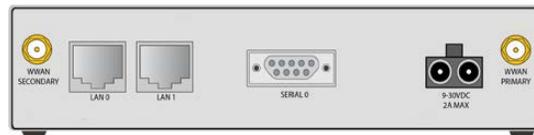
WR21 - RS-232/422/485 Models
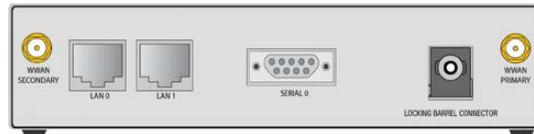
WR21 - RS-232 Models

PART NUMBERS	DIGI TRANSPORT WR21
WR21-M52B-DE1-SB	Digi TransPort WR21 - 4G LTE North America, Dual Ethernet, RS-232
WR21-M72B-DE1-SB	Digi TransPort WR21 - 4G LTE EMEA/APAC, Dual Ethernet, RS-232
WR21-M22B-DE1-SB	Digi TransPort WR21 - 4G LTE EMEA/APAC (450MHz), Dual Ethernet, RS-232
WR21-U92B-DE1-SB	Digi TransPort WR21 - HSPA+ Global, Dual Ethernet, RS-232
WR21-R52A-DE1-TB	Digi TransPort WR21 - GSM-R, Dual Etherent, RS-232/422/485
WR21-M52A-DE1-TB	Digi TransPort WR21 - 4G LTE North America, Dual Ethernet, RS-232/422/485
WR21-M72A-DE1-TB	Digi TransPort WR21 - 4G LTE EMEA/APAC, Dual Ethernet, RS-232/422/485
WR21-D52A-DE1-TA	Digi TransPort WR21 - CDMA 450MHz, Dual Ethernet, RS-232/422/485

PART NUMBERS	ACCESSORIES*
76000960	Antenna - Cellular, 450 MHz
76000926	Antenna - Cellular, 3G/4G/LTE
76000954	Antenna Base – SMA, 1m, RG174
76002059	Accessory Kit - DC Power
76002060	Accessory Kit - AC Power, Std Temperature, Int'l Plugs
76002061	Accessory Kit - AC Power, Extd Temperature, US and EU Cords
76000821	DC Power Cord - 2.1mm locking barrel plug to bare wire, 4m.
76000736	AC Power Supply - Extd Temperature, US and EU Power Cords to 12VDC - bare wire
76000823	AC Power Supply - Std Temperature, Universal Plugs (US, EU, UK, AU) to 12VDC - 2.1mm locking barrel plug
76000752	AC Power Supply - Extd Temperature, US and EU Power Cords to 12VDC - 2.1mm locking barrel
76000879	Mounting Bracket - DIN Rail
76000775	Mounting Bracket - Wall-mount
76000916	Mounting Bracket - DIN Rail
76000787	SIM Slot Cover Plate - 10pk
76000826	Cable - Ethernet, RJ45 to RJ45, 2m

*Sold separately, unless otherwise noted.

FOR MORE INFORMATION
PLEASE VISIT WWW.DIGI.COM

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