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 connectivity and is designed for Wide Area Network connectivity including 2.5G/3G/4G networks and beyond. Optional Gobi™ module provides true HSPA+/EV-DO carrier diversity in a single solution.

Flexible power and connectivity options, along with extended temperature ranges make Digi TransPort WR21 a versatile product for both commercial and industrial environments.
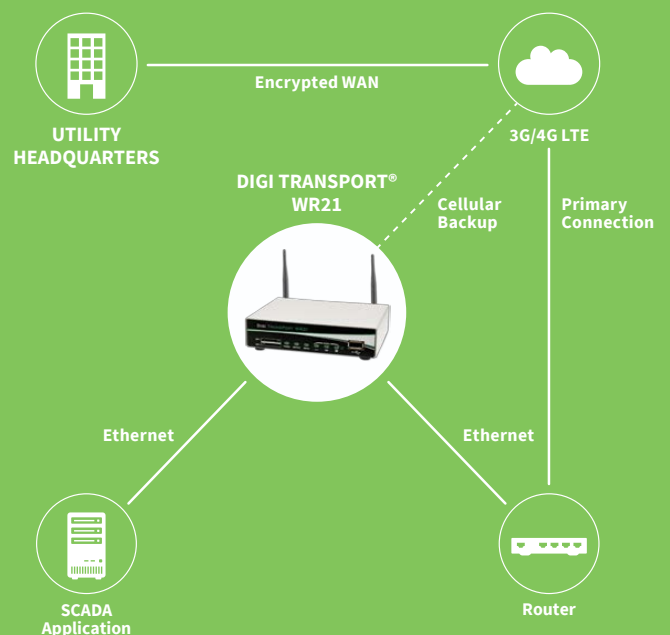
The Digi TransPort WR21 supports enterprise software features for advanced security (stateful firewall, MAC filtering, VPN), redundancy (VRRP+, SureLink®), and management (SNMP, event logging, analyzer trace, and QOS), enabling the product to be used in PCI or NERC-CIP compliant applications.

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 and gateways.

BENEFITS

– Compact, low-cost, flexible cellular routing platform with standard and enterprise feature sets

– Standard option includes basic routing and IP filtering; Enterprise option includes advanced routing protocols, VPN and stateful firewall

– High-performance architecture, flexible power and extended operating temperature

– 2.5G/3G/4G cellular interface including: including LTE, GSM:EDGE, HSPA, HSPA+ and CDMA: 1xRTT, EV-DO

– RS-232 serial and 10/100 Ethernet or RS-232/422/485 serial and 2-port Ethernet switch

– Digi Remote Manager software for easy setup, configuration, and maintenances

APPLICATION EXAMPLE

UTILITY HEADQUARTERS

Encrypted WAN

3G/4G LTE

DIGI TRANSPORT® WR21

Cellular Backup

Primary Connection

Ethernet

Ethernet

SCADA Application

Router

RELATED PRODUCTS

Digi TransPort® WR11

Digi TransPort® WR44

Digi TransPort® WR44 R

Accessories

Digi Remote Manager℠

SPECIFICATIONS	Digi TransPort® WR21

WIRELESS INTERFACES

WWAN**

LTE - EMEA (L1)	800/850/900/1800/1900/2100/2600 MHz; 3G fall back to 850/900/1900/2100 MHz and 2G fall back to 850/900/1800/1900 MHz; 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/1800/1900/2100 MHz; 2G/3G CDMA fall back to 800/1900 MHz; Transfer rate (max): 50 Mbps up, 100 Mbps down
LTE – NORTH AMERICA (L6)	700/850/1700(AWS)/1900 MHz; 2G/3G fall back to 850/1900 MHz; 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)/1900/2100 MHz; Transfer rate (max): 5.76 Mbps up, 21 Mbps 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
CDMA 1XRTT (BX)*	800/1900 MHz; Transfer rate (max): 153 Kbps up/down
GSM-R (R5)*	900/1800/1900 MHz (TRM-5); GPRS Class 10; Transfer rate (max): 42.8 Kbps up, 85.6 Kbps down
CONNECTORS	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	Optional SIM slot cover plate

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
STANDARD	Option of RS-232 or RS-232/422/485
ASYNC/SYNC	Async
DTE/DCE	DCE
SIGNAL SUPPORT	TXD, RXD, RTS, CTS, DTR, DCD, DSR, RI
FLOW CONTROL	Software (XON/XOFF), Hardware supported
COM PORT REDIRECTOR	RealPort®
CONNECTOR	DB-9

ETHERNET

PORTS	2
STANDARD	IEEE 802.3
PHYSICAL LAYER	10/100 Base-T
DATA RATE	10/100 Mbit/s
MODE	Full or Half duplex
INTERFACE	Auto MDI/MDIX
CONNECTOR	RJ-45

USB

PORTS	1
STANDARD	USB 2.0
SIGNALING	High-speed
CONNECTOR	Type A

OTHER

I/O AND DSL	N/A

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

** Transfer rates are theoretical and network operator dependent

DIGI

SPECIFICATIONS	Digi TransPort® WR21
POWER	
INPUT	9-30 VDC
CONSUMPTION	6W max, 4W typical
CONNECTOR	Depending on model: Locking barrel or screw-down removeable terminal block
DC POWER CORD*	Locking barrel to bare wire
DC POWER SUPPLY*	100-240 VAC 50/60 Hz; Option of standard temperature or extended temperature
BATTERY BACKUP	None
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)/ IP50
MOUNTING	Brackets for wall mount & DIN rail sold separately
ENVIRONMENTAL	
OPERATING TEMPERATURE ***	-35° C to +70° 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)	Optional
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. See www.digi.com for a full list.
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, SSLv3, FIPS 197, Open VPN client and server; PPTP, L2TP; VPN Tunnels included: 5; 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); IPv6 (firmware upgradable); 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
SPECIALTY/LEGACY PROTOCOLS	RealPort®; Modbus UDP/TCP to serial; X.25 including XOT, SNA/IP, TPAD and PAD; Protocol switch*

* Optional hardware. Lead time and/or minimum order quantity may apply. Contact Digi Sales for details.

*** Reduced cellular performance may occur above +60° C. Standard temperature power supplies may reduce temperature range.

DIGI

DIGI REMOTE MANAGER^{SM}
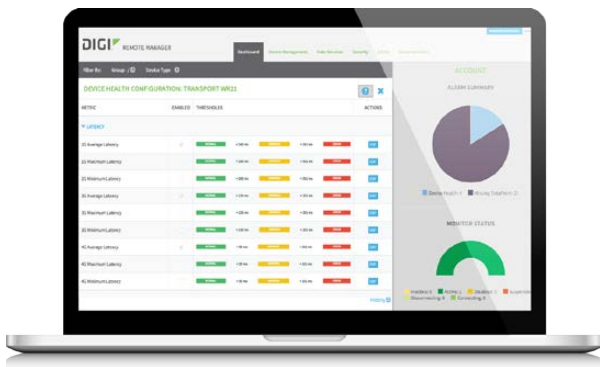
CAPABILITIES

– 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 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

PRODUCT IMAGES
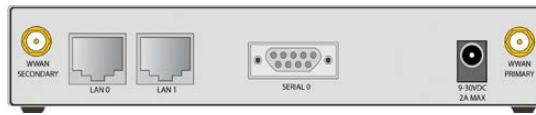
PART NUMBERS	DESCRIPTION
WR21-E12A-DE1-TA	Digi TransPort WR21 - Cellular (GSM EDGE), Ethernet (2 Ports), Serial (1 RS-232/422/485 Port), Class 1 Division 2 (C1D2), Antennas included, Power Supply not included
WR21-E12A-DE1-TB	Digi TransPort WR21 - Cellular (GSM EDGE), Ethernet (2 Ports), Serial (1 RS-232/422/485 Port), Class 1 Division 2 (C1D2), Antennas & Power Supply not included
WR21-E12B-DE1-SB	Digi TransPort WR21 - Cellular (GSM EDGE), Ethernet (2 Ports), Serial (1 RS-232 Port), Antennas & Power Supply not included
WR21-E12B-DE1-SW	Digi TransPort WR21 - Cellular (GSM EDGE), Ethernet (2 Ports), Serial (1 RS-232 Port), Antennas & Power Supply included
WR21-U92A-DE1-TA	Digi TransPort WR21 - Cellular (HSPA+ Global), Ethernet (2 Ports), Serial (1 RS-232/422/485 Port), Class 1 Division 2 (C1D2), Antennas included, Power Supply not included (International)
WR21-U92A-DE1-TB	Digi TransPort WR21 - Cellular (HSPA+ Global), Ethernet (2 Ports), Serial (1 RS-232/422/485 Port), Class 1 Division 2 (C1D2), Antennas & Power Supply not included
WR21-U92B-DE1-SB	Digi TransPort WR21 - Cellular (HSPA+ Global), Ethernet (2 Ports), Serial (1 RS-232 Port), Antennas & Power Supply not included (International)
WR21-U92B-DE1-SW	Digi TransPort WR21 - Cellular (HSPA+ Global), Ethernet (2 Ports), Serial (1 RS-232 Port), Antennas & Power Supply included (International)
WR21-L12A-DE1-TA	Digi TransPort WR21 - Cellular (4G LTE International), Ethernet (2 Ports), Serial (1 RS-232/422/485 Port), Class 1 Division 2 (C1D2), Antennas included, Power Supply not included (International)
WR21-L12B-DE1-SB	Digi TransPort WR21 - Cellular (4G LTE International), Ethernet (2 Ports), Serial (1 RS-232 Port), Antennas & Power Supply not included (International)
WR21-L12B-DE1-SW	Digi TransPort WR21 - Cellular (4G LTE International), Ethernet (2 Ports), Serial (1 RS-232 Port), Antennas & Power Supply included (International)
WR21-L52A-DE1-TA	Digi TransPort WR21 - Cellular (4G LTE Multi-Carrier Software Defined, North America), Ethernet (2 Ports), Serial (1 RS-232/422/485 Port), Class 1 Division 2 (C1D2), Antennas included, Power Supply not included
WR21-L52B-DE1-SB	Digi TransPort WR21 - Cellular (4G LTE Multi-Carrier Software Defined, North America), Ethernet (2 Ports), Serial (1 RS-232 Port), Antennas & Power Supply not included
WR21-L52B-DE1-SU	Digi TransPort WR21 - Cellular (4G LTE Multi-Carrier Software Defined, North America), Ethernet (2 Ports), Serial (1 RS-232 Port), Antennas & Power Supply included
WR21-L62A-DE1-TA	Digi TransPort WR21 - Cellular (4G LTE North America (AT&T and GSM Carriers)), Ethernet (2 Ports), Serial (1 RS-232/422/485 Port), Class 1 Division 2 (C1D2), Antennas included, Power Supply not included
WR21-L62B-DE1-SB	Digi TransPort WR21 - Cellular (4G LTE North America (AT&T and GSM Carriers)), Ethernet (2 Ports), Serial (1 RS-232 Port), Antennas & Power Supply not included
WR21-L62B-DE1-SU	Digi TransPort WR21 - Cellular (4G LTE North America (AT&T and GSM Carriers)), Ethernet (2 Ports), Serial (1 RS-232 Port), Antennas & Power Supply included
WR21-L82A-DE1-TB	Digi TransPort WR21 - Cellular (4G LTE Verizon), Ethernet (2 Ports), Serial (1 RS-232/422/485 Port), Class 1 Division 2 (C1D2), Antennas & Power Supply not included
WR21-L82B-DE1-SB	Digi TransPort WR21 - Cellular (4G LTE Verizon), Ethernet (2 Ports), Serial (1 RS-232 Port), Antennas & Power Supply not included
WR21-L82B-DE1-SU	Digi TransPort WR21 - Cellular (4G LTE Verizon), Ethernet (2 Ports), Serial (1 RS-232 Port), Antennas & Power Supply included

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