



Manage this device with Digi Remote Manager



# DIGI WR21

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

Digi 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 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 WR21 a versatile product for both commercial and industrial environments. Digi WR21 supports enterprise software features for advanced security (stateful firewall, MAC filtering, VPN),

redundancy (VRRP+, Digi SureLink®) and management (SNMP, event logging, analyzer trace, and QOS), enabling the product to be used in PCI or NERC-CIP compliant applications.

Gain critical insights into your deployed devices and manage your network with Digi Remote Manager® (Digi RM)— the command center for your deployment that facilitates easy setup, mass configuration, maintenance and support for hundreds or even thousands of remote Digi devices. Digi RM lets you evaluate, update and configure your Digi enterprise products — and the health of your network — at scale after deployment.

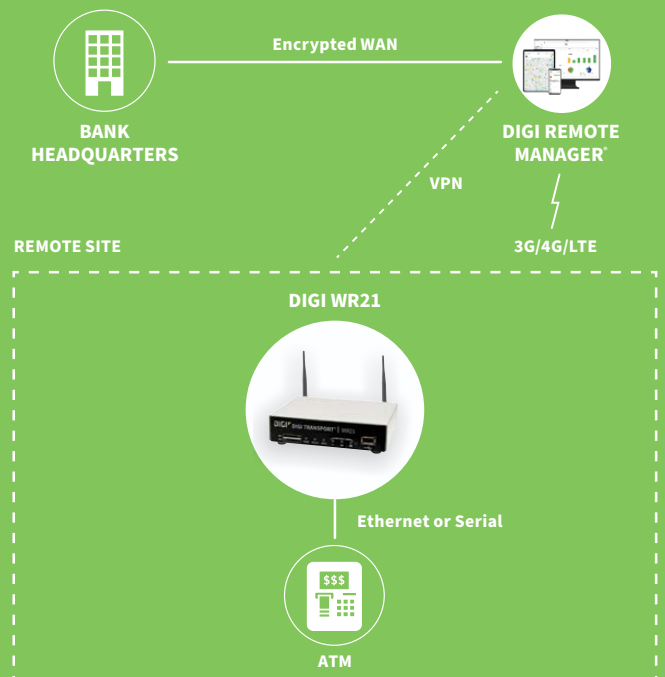
### BENEFITS

- 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
- Redundant connectivity with dual SIMs and Digi SureLink
- Digi Remote Manager platform for easy setup, mass configuration and management

### RELATED PRODUCTS



### APPLICATION EXAMPLE



## SPECIFICATIONS

## Digi 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, 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
EMEA CDMA EV-DO (D5)	3G EVDO Rev B: 450 MHz 2G 1XRTT: 450 MHz Transfer rate (max): 14.7 Mbps down, 5.4 Mbps 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
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## 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)
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## USB

PORTS	(1) USB 2.0 Type A
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\*Transfer rates are theoretical and network operator dependent.

\*\*Optional hardware.

## SPECIFICATIONS

## Digi 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, 18 W min power source required
CONSUMPTION	4 W typical (Idle); 12 W typical (Peak Tx/Rx)
CONNECTOR	Depending on model: locking barrel or screw-down removeable terminal block
PHYSICAL	
DIMENSIONS (L X W X H)	100 mm x 131 mm x 32 mm (3.9 in x 5.2 in x 1.3 in)
WEIGHT	0.49 kg (1.08 lb)
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 (-31° F to 158° F); reduced cellular performance may occur above 50° C (122° F)
STORAGE TEMPERATURE	-40° C to 85° C (-40° F to 185° F)
RELATIVE HUMIDITY	0% to 95% (non-condensing) @ 25° C (77° F)
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, visit <a href="http://www.digi.com/resources/certifications">www.digi.com/resources/certifications</a> for latest certifications
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	3-year****

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

\*\*\*\*Standard 3-year warranty upgradeable to 5 years with purchase of a Digi Remote Manager Premier 5-year subscription applicable to the product purchased only at the time of product purchase and with product registration at that time in Digi Remote Manager.

## ENTERPRISE SOFTWARE

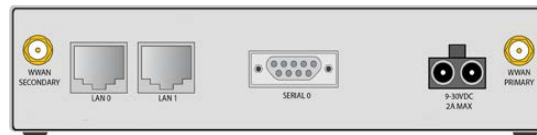
## DESCRIPTION

PROTOCOLS	HTTPS, FTP, SFTP, TLS 1.2, SMTP, SNMP (v1/v2c/v3), SSH, Telnet and CLI for web management; Remote management via <a href="#">Digi Remote Manager</a> ; 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); 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

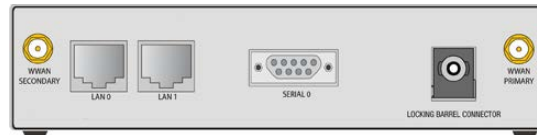
## PRODUCT IMAGES



WR21 - front

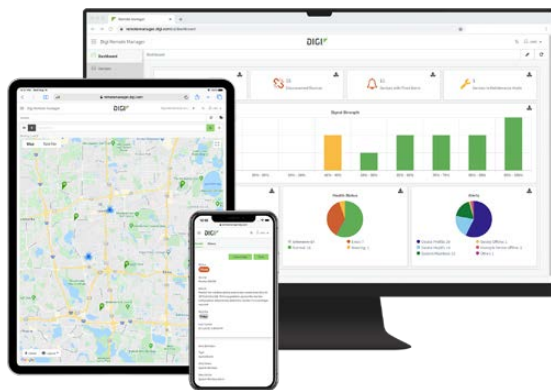


WR21 - RS-232/422/485 models



WR21 - RS-232 models

## DIGI REMOTE MANAGER®



Digi Remote Manager is the technology platform that brings networks to the next level, allowing networks — and the people who manage them — to work smarter. With Digi Remote Manager you can transform a multitude of dispersed IoT devices into a dynamic, intelligent network. Now you can easily deploy, monitor and diagnose thousands of mission-critical devices from a single point of command — on your desktop, tablet or phone. All the while, its software-defined security diligently safeguards your entire Digi ecosystem.

Learn more at [www.digi.com/digi-remote-manager](http://www.digi.com/digi-remote-manager)

## CAPABILITIES

- Activate, monitor and diagnose your mission-critical devices from a single point of command and control — on your desktop or mobile app
- Schedule key operations — including firmware updates and file management — on a single device or on a group of devices, keeping your network functionality up-to-date and maintaining compliance standards
- Manage edge devices out-of-band via console terminal access
- Keep tabs on device health and connectivity across device deployments of any size
- Create detailed reports and enable real-time alerts for specified conditions
- Integrate device data through open APIs to gain deeper insights and control with third-party applications
- Report and alert on performance statistics, including connection history, signal quality, latency, data usage and packet loss

## INFRASTRUCTURE

- Hosted in a commercial-grade cloud server environment that meets SOC 1®, SOC 2® and SOC 3® standards
- Superior availability, operating to 99.9% or greater
- Open APIs available to support application development

## SECURITY

- More than 175 security controls in place to protect your data
- Member of the Center for Internet Security® (CIS®)
- Enables compliance with security frameworks like ISO27002, HIPAA, NIST and more
- Earned Skyhigh's CloudTrust™ Program highest rating of Enterprise-Ready

PART NUMBERS	DIGI WR21
WR21-M52B-DE1-SB	Digi WR21 - 4G LTE North America, dual Ethernet, RS-232
WR21-M72B-DE1-SB	Digi WR21 - 4G LTE EMEA/APAC, dual Ethernet, RS-232
WR21-M22B-DE1-SB	Digi WR21 - 4G LTE EMEA/APAC (450MHz), dual Ethernet, RS-232
WR21-R52A-DE1-TB	Digi WR21 - GSM-R, dual Ethernet, RS-232/422/485
WR21-M52A-DE1-TB	Digi WR21 - 4G LTE North America, dual Ethernet, RS-232/422/485
WR21-M72A-DE1-TB	Digi WR21 - 4G LTE EMEA/APAC, dual Ethernet, RS-232/422/485
WR21-D52A-DE1-TA	Digi 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, 1 m, 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 - 2.1 mm locking barrel plug to bare wire, 4m.
76000736	AC power supply - extd temperature, US and EU power cords to 12 VDC - bare wire
76000823	AC power supply - Std temperature, universal plugs (US, EU, UK, AU) to 12 VDC - 2.1 mm locking barrel plug
76000752	AC power supply - extd temperature, US and EU power cords to 12 VDC - 2.1 mm locking barrel
76000879	Mounting bracket - DIN rail
76000775	Mounting bracket - wall-mount
76000916	Mounting bracket - DIN rail
76000787	SIM slot cover plate - 10 pk
76000826	Cable - Ethernet, RJ-45 to RJ-45, 2 m

\*Sold separately, unless otherwise noted.

PART NUMBERS	DIGI REMOTE MANAGER®
DIGI-RM-STD-1YR	Digi Remote Manager Standard - 1-year subscription
DIGI-RM-PRM-1YR	Digi Remote Manager Premier - 1-year subscription
DIGI-RM-PRM-3YR	Digi Remote Manager Premier - 3-year subscription
DIGI-RM-PRM-5YR	Digi Remote Manager Premier - 5-year subscription

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](http://www.digi.com/support).

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