



DUAL LTE / WI-FI  
MOBILE ACCESS  
ROUTER



# DIGI WR54

Rugged and secure cellular router with dual redundant communications for mission critical industrial and transportation applications

The versatility and performance of the Digi® WR54 router make it ideal for mission critical applications requiring continuous connectivity, field longevity and edge computing. Routing and gateway functions are secured across traditional and wireless communications networks, protocols and interfaces – while bridging local private wired or wireless subnets across a public network – safeguarding message privacy and integrity.

Mission critical communication is achieved through concurrent and independent dual cellular interfaces. System operation is assured with an industrial grade electrical and mechanical design, while an embedded python environment enables quick adaptation to future evolving system requirements.

Each cellular transceiver employs Gobi LTE Advanced technology allowing use on major networks. Dedicated PCIe 2.0 internal data buses deliver 10 GT/s aggregate bandwidth ensuring low latency high bandwidth cellular communications. Four gigabit Ethernet ports connect other IP capable systems, each configurable as an isolated secure LAN or all four can function as a layer 2 switch.

Digi TrustFence®, a suite of hardware and firmware features, ensures the integrity of Digi WR54 security functions. A cryptographic co-processor protects particularly sensitive data such as stored passwords and encryption keys.

## FEATURES AND BENEFITS

- Future built with dual-core 880 MHz MIPS processor and PCIe 2.0 internal bus
- Link failover and load balancing across dual 600 Mbps CAT11 cellular
- High speed 867 Mbps 802.11ac Wi-Fi for WAN or LAN service
- Cryptographic co-processor with secure key generation and storage
- Gigabit WAN/LAN Ethernet switch (4-port)
- Zero-touch fleet-wide configuration using Digi Remote Manager®

## APPLICATION EXAMPLE



## RELATED PRODUCTS



## SPECIFICATIONS

## DIGI WR54

<b>CELLULAR</b>	
<b>LTE – WORLDWIDE</b>	LTE FDD : 700 (B12,B13,B17, B28, B29) / 800 (B20) / 850 (B5, B26) / 900 (B8) / 1700AWS(B4, B66) / 1800 (B3) / 1900 (B2, B25) / 2100 (B1) / 2300(B30) / 2600(B7) LTE TDD : 2300(B40) / 2500(B41) / 2600(B38) 3G HSPA: 850/900/1700AWS/1800/1900/2100 MHz Transfer rate (max): 600 Mbps down, 75 Mbps up
<b>CONNECTOR</b>	Single cellular models: (2) 50 Ω SMA (center pin: female) Dual cellular models: (4) 50 Ω SMA (center pin: female)
<b>SIM SLOTS</b>	Single cellular models: (2) Mini-SIM (2FF) Dual cellular models: (4) Mini-SIM (2FF)
<b>SIM SECURITY</b>	Screw-down SIM cover
<b>WI-FI</b>	
<b>MODULE</b>	2 x 2 MIMO 2.4/5 GHz 802.11 a/b/g/n/ac, 867 Mbps (max)
<b>HOTSPOT</b>	Captive portal, customizable splash page
<b>AUTHENTICATION</b>	Basic ToS acceptance, Enterprise RADIUS
<b>3RD PARTY SERVICES</b>	Content filtering, embedded advertising
<b>USER MANAGEMENT</b>	Per client usage limit and reporting
<b>MODES</b>	Up to 4 Access Points and 1 Client
<b>SECURITY</b>	None, WPA/WPA2-Personal, WPA/WPA2-Enterprise
<b>CONNECTORS</b>	2 x 50 Ω RP-SMA (Center pin: male)
<b>GPS</b>	
<b>TECHNOLOGY</b>	Multi-constellation: Concurrent reception of up to 3 GNSS (GPS, Galileo, GLONASS, BeiDou)
<b>SENSITIVITY</b>	-163 dB
<b>PROTOCOL</b>	Protocol NMEA 0183 V2.3 sentence output
<b>CONNECTOR</b>	1 x 50 Ω SMA (Center pin: female); +3.3VDC active antenna drive
<b>SOFTWARE AND MANAGEMENT</b>	
<b>REMOTE MANAGEMENT</b>	Digi Remote Manager® (cloud based); SNMP v1/v2c/v3 (user installed/managed)
<b>LOCAL MANAGEMENT</b>	WebUI (HTTP/HTTPS); CLI (Telnet, SSH, SMS)
<b>MANAGEMENT/ TROUBLESHOOTING TOOLS</b>	FTP, SFTP, SCP; Protocol analyzer with PCAP for Wireshark; Event logging with Syslog and SMTP; NTP/SNTP
<b>PROGRAMMING TOOLS/ ENVIRONMENTS</b>	Python v3.6
<b>MEMORY</b>	256 MB RAM, 512 MB file space
<b>ETHERNET</b>	
<b>PORTS</b>	(4) RJ-45; 10/100/1000 Mbps (auto-sensing)
<b>SERIAL</b>	
<b>PORTS</b>	(1) DB09M; RS232 DTE Signal support TXD, RXD, RTS, CTS, DTR, DCD, DSR, RI software (XON/XOFF), hardware supported
<b>USB</b>	
<b>PORTS</b>	(1) USB 3.0 Type A connector
<b>PHYSICAL</b>	
<b>DIMENSIONS (L X W X H)</b>	5.75 in x 8.25 in x 2.5 in (14.61 cm x 20.95 cm x 6.35 cm)
<b>WEIGHT</b>	3.3 lbs (1.5 kg)
<b>STATUS LEDS</b>	Power on, WWAN signal strength, WWAN service
<b>ENCLOSURE</b>	Die-cast aluminium / IP54
<b>POWER REQUIREMENTS</b>	
<b>POWER INPUT</b>	9 - 36 VDC, 30W minimum power source required
<b>POWER CONSUMPTION</b>	13W typical (idle); 20W typical (peak Tx/Rx)
<b>ENVIRONMENTAL</b>	
<b>OPERATING TEMPERATURE</b>	-34° C to +74° C (-29° F to +165° F)
<b>RELATIVE HUMIDITY</b>	5% to 95% (non-condensing)

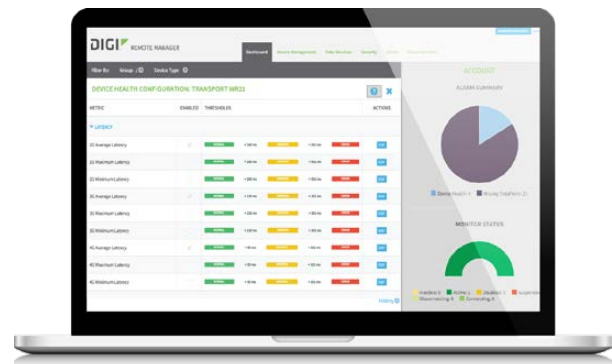
SPECIFICATIONS	DIGI WR54
<b>APPROVALS</b>	
<b>CELLULAR</b>	PTCRB
<b>SAFETY</b>	EN60950, EN62368
<b>VEHICLE</b>	ISO-7637-2, SAE J1455, SAE J1113, E-Mark
<b>ENVIRONMENTAL</b>	MIL-STD-810G
<b>EMISSIONS/IMMUNITY</b>	CE, FCC Part 15 Class B, AS/NZS CISPR 22, EN55024, EN55032
<b>WARRANTY</b>	
<b>PRODUCT WARRANTY</b>	3 years

## DIGI REMOTE MANAGER

### Manage and control devices from a central, secure platform.

When it comes to the Internet of Things, only the most reliable communication connections will do. With Digi Remote Manager®, you can visually monitor, update and maintain the performance requirements you depend on most, with reports on the following key parameters:

- Cellular connection history
- 3G/4G LTE signal quality
- Public Wi-Fi client usage statistics
- Packet delivery
- Latency
- Cellular data sent and received
- CPU and memory utilization
- Network interface throughput
- Level 1 PCI-DSS validation
- Open APIs available to support application development



### SECURITY

- Certified SSAE-16 facilities
- Over 175 security controls in place to protect data
- Security framework compliance with PCI, HIPPA, NIST and others
- Earned SkyHigh's Cloud Trust Program highest ranking of Enterprise-ready
- PCI certified; Attestation of Compliance

PART NUMBERS	DESCRIPTION
WR54-A106	Digi WR54 Single LTE, Wi-Fi, Worldwide
WR54-A206	Digi WR54 Dual LTE, Wi-Fi, Worldwide

PART NUMBERS	ACCESSORIES
76002084	WR54 Accessory Kit - Single Cellular
76002085	WR54 Accessory Kit - Dual Cellular
76002076	WR54 Power Supply

**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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