



DUAL LTE / DUAL
WI-FI MOBILE
ACCESS ROUTER



DIGI WR54

Rugged and secure cellular router for mission critical industrial and transportation applications, including FirstNet Ready™ models for public safety networks

The versatility and performance of Digi® WR54 routers make them ideal for mission critical applications requiring continuous connectivity, field longevity and edge computing. FirstNet Ready™ Digi WR54 provides secure routing and gateway functionality across wired and wireless communication networks. Local private subnets are bridged across public networks to safeguard privacy and integrity.

Digi WR54 is available with dual Wi-Fi radios to segment passenger Wi-Fi from fare collection, data, video and other applications, and offers FirstNet Ready models with both single and dual cellular modules. FirstNet® is a public/private partnership managed by the U.S. Dept. of Commerce that develops and operates a nationwide first responder network.

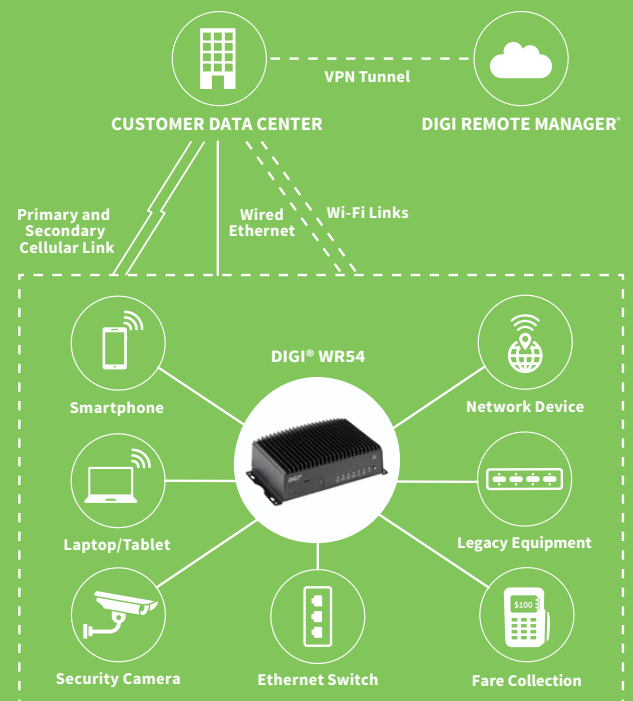
Designed to meet the demands of first responders, Digi WR54 includes concurrent and independent dual cellular interfaces that prioritize critical communications. Industrial-grade design supports the most rugged conditions, including vibration and temperature changes. An embedded Python environment also enables quick adaptation to evolving system requirements.

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 information.

FEATURES AND BENEFITS

- [FirstNet Ready](#) models include Digi WR54 A146/A246 with single or dual cellular modules
- Global models Digi WR54 A106/A206 with single or dual cellular radios
- Future-built with dual-core 880 MHz MIPS processor and PCIe 2.0 internal bus
- Segmented private vs. public data communication across dual 600 Mbps Cat 11 cellular modules
- High-speed 867 Mbps 802.11ac Wi-Fi for WAN or LAN service and dual Wi-Fi radios in Digi WR54-A112
- Cryptographic co-processor with secure key generation
- Zero-touch configuration using Digi Remote Manager®
- Digi Foundations™ 1-, 3- or 5-year subscription included

APPLICATION EXAMPLE



RELATED PRODUCTS



SPECIFICATIONS

DIGI® WR54

CELLULAR	
LTE – WORLDWIDE	LTE – WORLDWIDE LTE FDD: B1, B2, B3, B4, B5, B7, B8, B12, B13, B17, B20, B25, B26, B28, B29, B30 (Rx only), B66; LTE TDD: B38, B40, B41 3G HSPA+: B1, B2, B4, B5, B8 Transfer rate (max): 600 Mbps down, 75 Mbps up (Cat 11)
LTE – UNITED STATES / CANADA (FIRSTNET READY)	LTE FDD: B1, B2, B3, B4, B5, B7, B8, B9, B12, B13, B14, B18, B19, B20, B26, B29, B30, B32, B41, B42, B43, B46, B48, B66 3G HSPA: B1, B2, B4, B5, B6, B8, B9, B19 Transfer rate (max): 600 Mbps down, 150 Mbps up (Cat 12)
CONNECTOR	Single cellular models: (2) 50 Ω SMA (center pin: female) Dual cellular models: (4) 50 Ω SMA (center pin: female)
SIM SLOTS	Single cellular models: (2) Mini-SIM (2FF) Dual cellular models: (4) Mini-SIM (2FF)
SIM SECURITY	Screw-down SIM cover
WI-FI	
MODULE	2 x 2 MIMO 2.4/5 GHz 802.11 a/b/g/n/ac, 867 Mbps (max); dual Wi-Fi modules in WR54-A112
HOTSPOT	Captive portal, customizable splash page
AUTHENTICATION	Basic ToS acceptance, enterprise RADIUS
THIRD-PARTY SERVICES	Content filtering, embedded advertising
MODES	Up to 4 access points and 1 client per Wi-Fi module (8+2 total)
SECURITY	None, WPA/WPA2-personal, WPA/WPA2-enterprise
CONNECTORS	2 x 50 Ω RP-SMA (center pin: male)
GPS	
TECHNOLOGY	Multi-constellation: concurrent reception of up to 3 GNSS (GPS, Galileo, GLONASS, BeiDou)
SENSITIVITY	-163 dB
PROTOCOL	Protocol NMEA 0183 V2.3 sentence output
CONNECTOR	1 x 50 Ω SMA (center pin: female); +3.3 VDC active antenna drive
SOFTWARE AND MANAGEMENT	
PROTOCOLS	IPv4/IPv6, DMNR, QoS, NTP, Dynamic DNS, Syslog
SECURITY	Stateful firewall, VPN (IPsec and OpenVPN), PKI and RADIUS
REMOTE MANAGEMENT	Digi Remote Manager® (cloud based); SNMP v1/v2c/v3
LOCAL MANAGEMENT	Web interface (HTTP/HTTPS); CLI (SSH, serial port)
MANAGEMENT/ TROUBLESHOOTING TOOLS	Protocol analyzer with PCAP for Wireshark, event and system logging (with Syslog), accessible from Digi Remote Manager, SFTP or SCP
PROGRAMMING TOOLS/ ENVIRONMENTS	Python v3.5
ETHERNET	
PORTS	(4) RJ-45; 10/100/1000 Mbps (auto-sensing)
SERIAL	
PORTS	(1) DB9-M; RS-232 DTE Signal support TXD, RXD, RTS, CTS, DTR, DCD, DSR, RI software (XON/XOFF), hardware supported
USB	
PORTS	(1) USB 3.0 Type A connector
PHYSICAL	
DIMENSIONS (L X W X H)	14.61 cm x 20.95 cm x 6.35 cm (5.75 in x 8.25 in x 2.5 in)
WEIGHT	1.5 kg (3.3 lbs)
STATUS LEDS	Power on, WWAN signal strength, WWAN service
ENCLOSURE	Die-cast aluminium / IP54
POWER REQUIREMENTS	
POWER INPUT	9 - 36 VDC, 30 W minimum power source required
POWER CONSUMPTION	13 W typical (idle); 20 W typical (peak Tx/Rx)

SPECIFICATIONS

DIGI WR54

ENVIRONMENTAL

OPERATING TEMPERATURE	-34° C to 74° C (-29° F to 165° F)
RELATIVE HUMIDITY	5% to 95% (non-condensing)

APPROVALS

CELLULAR	PTCRB, AT&T, Sprint (WR54-A146 and WR54-A246 only), Verizon
SAFETY	EN60950, EN62368
VEHICLE	ISO 7637-2/3, ISO 10605, ISO 16750-2 Pulses 4/5a/5b, SAE J1455, SAE J1113, E-Mark*
ENVIRONMENTAL	MIL-STD-810G
EMISSIONS/IMMUNITY	CE, FCC Part 15 Class B, AS/NZS CISPR 22, EN55024, EN55032

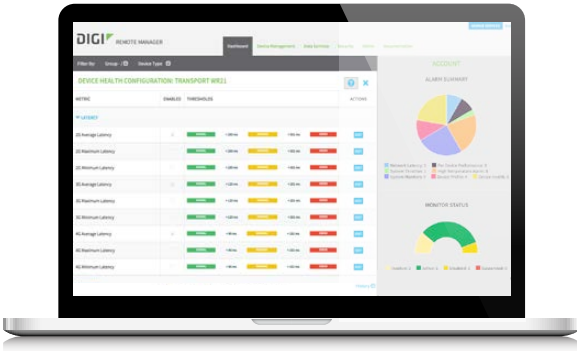
WARRANTY

PRODUCT WARRANTY	3-year product warranty (1-year Digi Foundations included)**
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*Only on WR54-A106, WR54-A112 and WR54-A206 models.

**Digi Foundations extends the standard three-year warranty to a Limited Lifetime Warranty that provides replacement with a new or similar Digi product for a period of five years from the date of purchase. After five years from the purchase date, the warranty value will revert to a 40 percent credit towards the MSRP of an equivalent product from 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
- Activate or deactivate cellular lines and monitor data to ensure you never incur overage charges

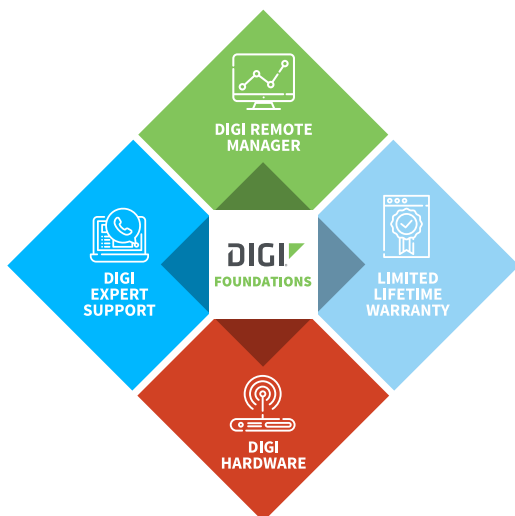
INFRASTRUCTURE

- 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

DIGI FOUNDATIONS™



IT'S TIME TO CONNECT WITH CONFIDENCE

The convenient, comprehensive and secure way to integrate IoT communications hardware, device management software, global support and lifetime warranty protection into a connectivity solution to simplify your IoT network growth.

- [Digi Remote Manager®](#) (DRM) gives you a single point of contact, command and control with sophisticated remote device monitoring and management tools.
- [Digi Expert Support](#) is available around the clock, seven days a week, around the world with experts ready to provide technical support by phone, email or online.
- [Digi Limited Lifetime Warranty](#) lowers the total cost of ownership with hardware protection and equipment upgrades to expand your network as needs evolve.

Digi Foundations, with DRM, simplifies network and device management – for hundreds or hundreds-of-thousands of Digi or third-party devices – with options to upgrade as technology evolves. Isn't it time you got better connected?

For more information visit: digi.com/foundations

PART NUMBERS*	DESCRIPTION
WR54-A106	Digi WR54 single LTE, Wi-Fi, worldwide, includes 1-year, 3-year or 5-year subscription to Digi Foundations
WR54-A112	Digi WR54 single LTE, dual Wi-Fi, worldwide, includes 1-year, 3-year or 5-year subscription to Digi Foundations
WR54-A206	Digi WR54 dual LTE, Wi-Fi, worldwide, includes 1-year, 3-year or 5-year subscription to Digi Foundations
WR54-A146	Digi WR54 single LTE, Wi-Fi, North America, FirstNet Ready, includes 1-year, 3-year or 5-year subscription to Digi Foundations
WR54-A246	Digi WR54 dual LTE, Wi-Fi, North America, FirstNet Ready, includes 1-year, 3-year or 5-year subscription to Digi Foundations

*Includes your choice of 1-year, 3-year or 5-year subscription to Digi Foundations; note that you must add one of the following SKUs to your order: DGF-BDL-PLUS-1YR, DGF-BDL-PLUS-3YR, or DGF-BDL-PLUS-5YR.

PART NUMBERS	ACCESSORIES*
76002084	Digi WR54 accessory kit - single cellular
76002085	Digi WR54 accessory kit - dual cellular
76002086	Digi WR54 accessory kit - dual Wi-Fi
76002076	Digi WR54 power supply

*Sold separately, unless otherwise noted.

FOR MORE INFORMATION
PLEASE VISIT DIGI.COM

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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