

DIGI



DUAL CELLULAR / DUAL WI-FI
MOBILE ACCESS ROUTER



Manage this device with
Digi Remote Manager



DIGI TX54

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 TX54 routers make them ideal for mission critical applications requiring continuous connectivity, field longevity and edge computing. FirstNet Ready™ Digi TX54 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 TX54 is available with dual Wi-Fi radios to segment passenger Wi-Fi from fare collection, data, video and other applications, and offers models with both single and dual LTE-Advanced or LTE-Advanced Pro FirstNet Ready™ cellular modules. FirstNet® is a public/private partnership managed by the U.S. Department of Commerce that develops and operates a nationwide first responder network.

Designed to meet the demands of first responders, Digi TX54 includes concurrent and independent dual cellular interfaces that prioritize critical communications. The industrial-grade design supports the most rugged conditions, including vibration and temperature changes. A Python development environment allows for edge computing and intelligence.

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 TX54 security functions. Chip-level encryption protects the onboard file system.

FEATURES AND BENEFITS

- FirstNet Ready™ and global models are available in both single and dual cellular options
- Future-built with dual-core 880 MHz MIPS processor and PCIe 2.0 internal bus
- Capable of segmenting private and public data communication across dual 600 Mbps LTE-Advanced Cat 11 or LTE-Advanced Pro Cat 12 cellular modules
- High-speed 867 Mbps 802.11ac Wi-Fi for WAN or LAN service and optional dual Wi-Fi radios
- Cryptographic co-processor with secure key generation
- Digi Remote Manager® platform for easy setup, mass configuration and management

RELATED PRODUCTS



Digi TX64



Digi WR44 RR



Digi WR31



Accessories



Digi Remote Manager®

APPLICATION EXAMPLE



SPECIFICATIONS

DIGI® TX54

CELLULAR

LTE-ADVANCED WORLDWIDE Visit <https://www.digi.com/resources/certifications> for latest cellular certifications

LTE-ADVANCED PRO UNITED STATES / CANADA (FIRSTNET READY™) Visit <https://www.digi.com/resources/certifications> for latest cellular certifications

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 with support for up to 12 stations, 867 Mbps (max); dual Wi-Fi modules in TX54-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 WPA/WPA2-personal, WPA/WPA2-enterprise

CONNECTORS 2 x 50 Ω RP-SMA (center pin: male)

BLUETOOTH®

MODULE BLE 4.2

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

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)

ENVIRONMENTAL

MOUNTING OPTIONS Flexible mounting options

OPERATING TEMPERATURE -34° C to 74° C (-29° F to 165° F)

STORAGE TEMPERATURE -40° C to 85° C (-40° F to 185° F)

RELATIVE HUMIDITY 5% to 95% (non-condensing)

NEMA

SPECIFICATION Meets or exceeds the NEMA TS2 environmental requirements (-34° C to 74° C temperature range; 18% to 95% humidity over the temperature range; Vibration: 0.5 g @ 5 Hz to 30 Hz; Shock: 10 g)

APPROVALS

CELLULAR PTCRB, AT&T, OnGo, Sprint, Verizon, PNTM, Anatel; see part numbers for more details on each SKU

SAFETY EN60950, EN62368

VEHICLE ISO 7637-2/3, ISO 10605, ISO 16750-2 Pulses 4/5a/5b, SAE J1113, E-Mark

RAIL EN50155, EN45545-2, EN50121-3-2, EN50155: TX54-A106, TX54-A146 and TX54-A246 only

ENVIRONMENTAL MIL-STD-810G (temperature, humidity, vibration, shock, dust)

EMISSIONS/IMMUNITY CE, FCC Part 15 Class B, AS/NZS CISPR 22, EN55024, EN55032

SPECIFICATIONS

DIGI® TX54

WARRANTY

PRODUCT WARRANTY

3-year*

*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

PROTOCOL SUPPORT

HTTP, HTTPS, FTP client, SSL, TLS v1.2, SCP (client and server), SFTP, SMTP client for use by scripts and the command line, SNMP (v2/v3), SSH; remote management via Digi Remote Manager®; serial Modbus, MQTT client, protocol analyzer, ability to capture PCAP for use with Wireshark; DynDNS; dynamic DNS client compatible with BIND9/No-IP/DynDNS; DMNR; Dual-APN; captive portal, Intelliflow; X.509 certificate management; dead reckoning

SECURITY

IP filtering, stateful firewall, custom firewall rules (iptables), address and port translation; SSL, SSLv2, SSLv3; Authentication: RADIUS, TACACS+; certificates; MAC address filtering; VLAN support

VPN

IPSec with IKEv1, IKEv2, NAT Traversal; OpenVPN client and server; GRE VPN tunnels; Cryptology: SHA-1/256/384/512, MD5, RSA; Encryption: 3DES and AES up to 256-bit (CBC mode for IPSec); Diffie Hellman: DH groups 1-32 (CURVE448)

ROUTING/FAILOVER

IP pass-through; NAT, NAPT with IP port forwarding; Ethernet bridging; Ethernet bonding; GRE; multicast routing; Routing protocols: RIP (v1, v2) OSPF, BGP; IP failover: VRRP; automatic failover; Digi SureLink®

OTHER PROTOCOLS

DHCP; dynamic DNS client compatible with No-IP/DynDNS; Nagios, DNS server, NTP server, multicast, mDNS, IPerf

LOCAL MANAGEMENT

Web interface (HTTP/HTTPS); CLI (SSH, serial port); custom factory configuration

MANAGEMENT / TROUBLESHOOTING PROTOCOLS

Protocol analyzer with PCAP for Wireshark, event and system logging (with syslog), accessible from Digi Remote Manager, SFTP or SCP

PROGRAMMING TOOLS / ENVIRONMENTS

Python v3.6.4

PRODUCT IMAGES

FRONT



BACK



POWER SUPPLY*



ACCESSORY KIT*



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

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 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

PART NUMBERS	DIGI® TX54
TX54-A106	Digi TX54 single LTE-Advanced Cat 11, Wi-Fi, worldwide, Anatel
TX54-A112	Digi TX54 single LTE-Advanced Cat 11, dual Wi-Fi, worldwide
TX54-A206	Digi TX54 dual LTE-Advanced Cat 11, Wi-Fi, worldwide, Anatel
TX54-A146	Digi TX54 FirstNet - single LTE-Advanced Pro Cat 12, Wi-Fi, North America, CBRS, Sprint
TX54-A246	Digi TX54 FirstNet - dual LTE-Advanced Pro Cat 12, Wi-Fi, North America, CBRS, Sprint

PART NUMBERS	ANTENNA*
76002090	GNSS Untethered Dead Reckoning - Roof Mount Antenna EAU: Less than 300
76002089	GNSS Untethered Dead Reckoning - Dash Mount Antenna
76002097	PCTEL 7-in-1 Dome Antenna, LTE, Wi-Fi, GNSS, Gray
76002100	PCTEL 7-in-1 Dome Antenna, LTE, Wi-Fi, GNSS, Green, 3 ft
76002101	MobileMark 5-in-1 Dome Antenna, LTE, Wi-Fi, GNSS, Black, 6 ft
76002102	MobileMark 3-in-1 Dome Antenna, LTE, GNSS, Black, 6 ft

PART NUMBERS	POWER SUPPLY*
76002099	Excelsys Dual Output Power Supply TX54
76002096	Single Output Power Supply DOT Kit TX54
76002098	Single Output Power Supply Kit WR31

PART NUMBERS	OTHER ACCESSORIES*
76002084	Digi TX54/WR54 accessory kit - single cellular
76002085	Digi TX54/WR54 accessory kit - dual cellular
76002086	Digi TX54/WR54 accessory kit - dual Wi-Fi
76002076	Kit, Digi WR54/WR64 power supply
76002091	TX54 DIN Rail Bracket: 1K units EAU
26000261	CBL, Galaxy PMBus Active Adapter

*Sold separately, unless otherwise noted.

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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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