DUAL CELLULAR / DUAL WI-FI
MOBILE ACCESS ROUTER

Manage this device with
Digi Remote Manager

FIRSTNET®
Built with AT&T
READY

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.
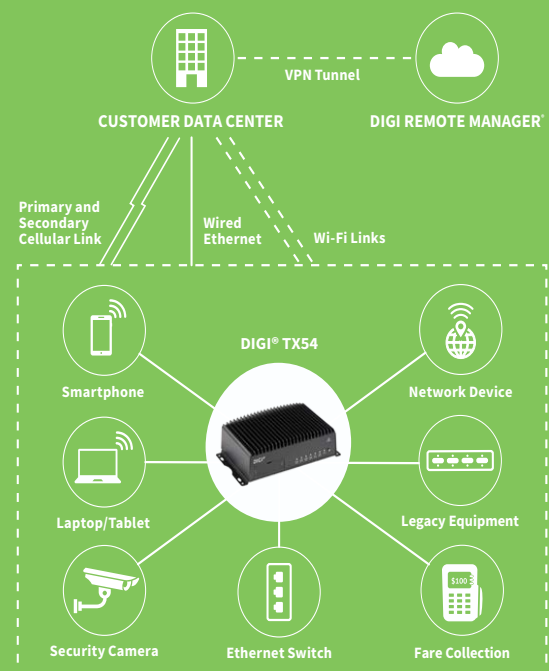
FEATURES AND BENEFITS

– 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

APPLICATION EXAMPLE

VPN Tunnel

CUSTOMER DATA CENTER   **DIGI REMOTE MANAGER®**

Primary and Secondary Cellular Link   **Wired Ethernet**   **Wi-Fi Links**

DIGI® TX54

Smartphone

Network Device

Laptop/Tablet

Legacy Equipment

Security Camera

Ethernet Switch

Fare Collection

RELATED PRODUCTS

Digi TX64   Digi WR44 RR   Digi WR31   Accessories   Digi Remote Manager®

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

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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/HTTS); 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 connectvity 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

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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.

FirstNet® and FirstNet Ready™ are registered trademarks and service marks of the First Responder Network Authority.

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Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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