Digi TX54 5G

Rugged and secure cellular router for mission critical industrial and transportation applications, including 5G and primary responder models for public safety networks

The versatility of **Digi TX54** routers makes them ideal for mission critical applications requiring continuous connectivity, field longevity and edge computing. Digi TX54 provides secure routing and gateway functionality across wired and wireless communication networks with the latest-generation technology — easy to deploy and centrally managed via **Digi Remote Manager**® (Digi RM), which is included in your **Digi 360** solution. (See page 2.)

Digi TX54 is available with dual Wi-Fi radios to segment passenger Wi-Fi from fare collection, data, video and other applications, and with models for single and dual LTE-Advanced, LTE-Advanced Pro and 5G. Digi TX54 also offers models with **FirstNet Trusted**™ and **Verizon Frontline** support for the critical demands of first responders and emergency communications. Local private subnets are bridged across public networks to safeguard privacy and integrity. Digi TX54 also meets the U.S. government cybersecurity **FIPS 140-2** standard.

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. Support for **Digi Containers** and Python allows for flexible 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, and chip-level encryption protects the onboard file system.

Digi WAN Bonding and **Digi Mobile VPN** value-added services provide constant, secure connectivity with 5G/LTE WAN aggregation, immediate failover and highly resilient application and session persistence with mobile encryption for critical communication.

Related Digi transportation router solutions

Digi TX64 5G Rail

Digi TX64 5G

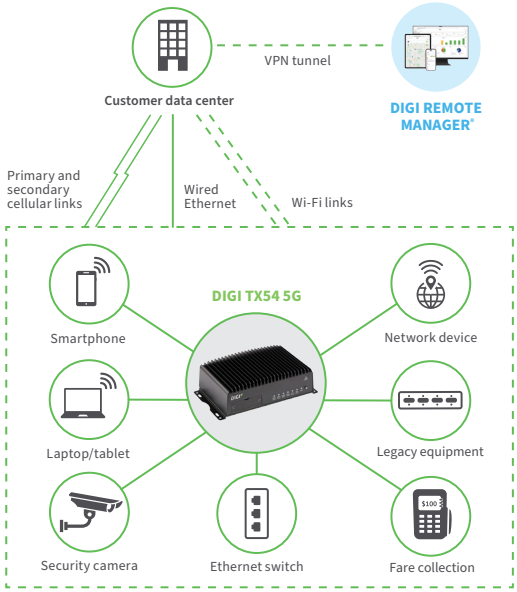
Digi TX40 5G

Digi Remote Manager

Key features, benefits and applications

- 5G, LTE-A Pro and LTE-A single and dual cellular models
- Primary responder models for critical communications with **FirstNet Trusted**™ and **Verizon Frontline** support
- Meets U.S. government **FIPS 140-2** cybersecurity standard
- Capable of segmenting private and public data communication across dual cellular modules
- High-speed Wi-Fi 5 (802.11ac) for WAN or LAN service and optional dual Wi-Fi radios
- Cryptographic co-processor with secure key generation
- Built-in **Digi TrustFence** for device security, secure encrypted connections, ongoing monitoring and support
- Includes the **Digi 360** solution with warranty, customer care and **Digi Remote Manager** cloud management, enabling you to easily deploy, mass configure and maintain devices
- Value-added services include **Digi Containers**, **Digi WAN Bonding** 5G/LTE WAN aggregation with immediate failover and **Digi Mobile VPN** for secure, persistent mobile connectivity

Application example



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DIGI TX54 5G WITH DIGI 360

Digi 360

Digi 360 offers comprehensive IoT packaged solutions, including purpose-built devices, software and services to help customers optimize their IoT investments and maximize ROI. These solutions are designed to simplify IoT complexity, and ease the challenges enterprises face in configuring, deploying and managing their IoT initiatives. Your Digi 360 subscription is included with the purchase of **Digi TX54 5G**, complete with Digi Remote Manager, warranty and customer care. **Learn more at digi.com/digi360**.

Management

Digi Remote Manager®, our network orchestration platform, provides complete visibility and control, with configuration, remote monitoring, automation, security and OTA software update capabilities.

Device

High-performanace, purpose-built Digi devices, with integrated software, designed to meet the requirements of a wide range of enterprise, industrial, medical and transportation use cases.

360

Warranty

Device warranty covering the full length of the Digi 360 subscription, to help customers maximize their technology investment while limiting risk.

Customer Care

The support plan provides 24 x 7 x 365 tier 1 support with 4-hour SLA for device and network troubleshooting to ensure customers can resolve issues quickly.

Value-Added Services

Digi Containers

Digi Remote Manager enables deployment of custom applications via containers

Digi Containers simplify and centralize the process of building, deploying and running custom applications on devices managed with **Digi Remote Manager** as the central portal. Containers with custom programs or Python applications can be loaded via Digi RM on any device running the **Digi Accelerated Linux** operating system (DAL OS).

As an add-on service to Digi Remote Manager, Digi Containers are a powerful capability implemented via Lightweight Linux Containers (LXC). LXC tools enable developers to package up a custom application, with its dependencies and configuration, into a lightweight, portable bundle that shares only the running kernel with the host device.

Digi WAN Bonding

Resilient connectivity and maximum performance across multiple connections

Digi WAN Bonding combines multiple connections into a seamless and resilient connectivity solution that ensures optimal performance and maximum uptime anywhere around the world.

Digi devices provide a range of connectivity options including cellular failover with features such as **Digi SureLink®**, policy-based routing and interface bonding. These features are excellent at preventing any external network failures from causing downtime.

Digi Mobile VPN

Secure VPN service with persistent connectivity for critical communications

Digi Mobile VPN enables users to create a secure connection between their data centers and the Digi router, including connected (wired or wireless) edge devices. Digi Mobile VPN offers persistent, secure connectivity, utilizing **Digi Remote Manager** as the central portal for orchestrating the mobile VPN setup and deployment.

This functionality is particularly important for public sector, emergency response and mass transit applications that require secure and reliable connections in first responder vehicles, buses, trains and paratransit vans.

*Digi Containers, Digi WAN Bonding and Digi Mobile VPN are available as value-added services with Digi Remote Manager.

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DIGI TX54 5G WITH DIGI 360

Digi 360 Management and Security

Digi Accelerated Linux (DAL OS)

DAL OS is Digi's standard operating system integrated into Digi **Enterprise** (EX), **Industrial** (IX) and **Transportation** (TX) routers, **console servers** and **USB-connected devices**. Developed for speed and simplicity, DAL OS enables advanced capabilities that support today's demanding applications. **Learn more at digi.com/DAL**.

Digi Remote Manager (Digi RM)

Digi Remote Manager is a proven technology platform that brings networks to the next level, empowering networks — and the people who manage them — to work smarter. Digi RM transforms a multitude of dispersed IoT devices into a dynamic, intelligent network. It's easy to deploy, monitor and diagnose thousands of mission-critical devices from a single point of command on a desktop, tablet or phone. All the while, software-defined security diligently safeguards your entire Digi ecosystem. **Learn more at digi.com/digi-remote-manager**.

Digi RM infrastructure and security

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

DAL OS and Digi RM capabilities

- **DAL OS with Digi Remote Manager:** Remote console access, configuration templates, HTTP proxy, device event logs, configurable maintenance window
- **Serial:** Modbus, serial-over-TCP/UDP
- **Customization:** Python 3, Python pip, PyCharm integration, shell scripting, containers, MQTT client
- **Troubleshooting:** iPerf and nuttcp bandwidth testing, Find Me tool
- **GNSS:** NMEA/TAIP location forwarding to servers, geo-fencing
- Activate, monitor and diagnose your mission-critical devices through a single portal
- 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
- Monitor equipment health and connectivity across deployments
- Create detailed reports and 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

Digi TrustFence

The Digi TrustFence device security framework simplifies the process of securing multiple connected devices.

DIGI TRUSTFENCE

Designed for mission-critical applications, **Digi TrustFence** enables users to easily integrate device security, device identity, and data privacy capabilities into product design.

Digi TrustFence security for IoT devices is designed to grow and adapt with new and evolving threats.

Learn more at digi.com/trustfence.

Built-in Security. Delivered.

- **Secure boot:** Programs and code running on the device are validated to be from an approved source or manufacturer
- **Protected hardware ports:** Internal and external I/O ports are hardened and access-controlled to prevent unwanted intrusion
- **Authentication:** Data authentication and device identity management options, with updated user and password settings
- **Secure connections:** Latest encryption protocols for data in motion and over-the-air (OTA) transmissions to ensure integrity
- **Ongoing monitoring and support:** Ongoing threat measurement and monitoring services, with external security audits

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DIGI TX54 5G WITH DIGI 360

Specifications

Manage and configure Digi TX54 5G with Digi Remote Manager

SPECIFICATIONS	DIGI TX54 5G WITH DIGI 360*
WIRELESS INTERFACES	
CELLULAR / WWAN**	
5G MODELS	**5G NR Sub-6 GHz bands:** n1, n2, n3, n5, n7, n8, n12, n20, n28, n38, n41, n48 CBRS, n66, n71, n77, n78, n79, C-band **4G LTE-Advanced Pro bands:** B1, B2, B3, B4, B5, B7, B8, B12, B13, B14 FirstNet®, B17, B18, B19, B20, B25, B26, B28, B29, B30, B32, B34, B38, B39, B40, B41, B42, B46, B48 CBRS, B66, B71 **3G UMTS/HSPA+ bands:** B1, B2, B4, B5, B6, B8, B9, B19
4G LTE-ADVANCED PRO MODELS (UNITED STATES / CANADA)	**4G LTE-Advanced Pro bands:** B1, B2, B3, B4, B5, B7, B8, B12, B13, B14 FirstNet®, B18, B19, B20, B26, B29, B30, B32, B41, B42, B43, B46, B48 CBRS, B66 **3G UMTS/HSPA+ bands:** B1, B2, B4, B5, B6, B8, B9, B19
4G LTE-ADVANCED MODELS (GLOBAL)	**4G LTE-Advanced bands:** B1, B2, B3, B4, B5, B7, B8, B12, B13, B17, B20, B25, B26, B28, B29, B30, B32, B38, B40, B41, B66 **3G UMTS/HSPA+ bands:** B1, B2, B4, B5, B8
CONNECTORS	**4G single cellular models:** (2) 50 Ω SMA (center pin: female) **4G dual cellular models:** (4) 50 Ω SMA (center pin: female) **5G single cellular models:** (4) 50 Ω SMA (center pin: female) **5G dual cellular models:** (6) 50 Ω SMA (center pin: female)
SIM SLOTS	**Single cellular models:** (2) Mini-SIM (2FF) **Dual cellular models:** (4) Mini-SIM (2FF)
SIM SECURITY	SIM slot cover plate included
WI-FI	
TECHNOLOGY	Wi-Fi 5 (802.11ac) 2.4 GHz and 5 GHz, 2 x 2 MIMO
SECURITY	WPA, WPA2 and WPA3 Personal and Enterprise, Open and Open Enhanced security standards
HOTSPOT	Captive portal with customizable splash page, terms and conditions, shared password, user-specific password, RADIUS authentication
THIRD-PARTY SERVICES	Content filtering, embedded advertising
MODES	Simultaneous client and access point support **Single Wi-Fi models:** up to 8 access points, up to 128 client connections **Dual Wi-Fi models:** up to 16 access points, up to 256 client connections
CONNECTORS	**Single Wi-Fi models:** (2) 50 Ω RP-SMA (center pin: male) **Dual Wi-Fi models:** (4) 50 Ω RP-SMA (center pin: male)
BLUETOOTH	
TECHNOLOGY	Bluetooth® 4.2
GNSS	
TECHNOLOGY	GPS, Galileo, BeiDou and GLONASS with Untethered Dead Reckoning (UDR), multiple geofence support
SENSITIVITY	Tracking and navigation: −163 dBm
PROTOCOL	NMEA and TAIP
CONNECTOR	(1) 50 Ω SMA (center pin: female); +3.3 VDC active antenna drive
WIRED INTERFACES	
ETHERNET	
PORTS / CONNECTOR	(4) RJ-45; 10/100/1000 Mbps Base-T (auto-sensing); IEEE 802.3; configurable as WAN or LAN
SERIAL	
PORTS / CONNECTOR	(1) RS-232; DB-9 male (DTE)
USB	
PORTS / CONNECTOR	(3) USB 3.0 Type A

*Includes the **Digi 360** solution for **Digi TX54** (1-year) with **Digi Remote Manager**, **warranty** and **customer care**.
Visit **digi.com/resources/certifications for latest approvals and updates.

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DIGI TX54 5G WITH DIGI 360

Specifications and Warranty

Manage and configure Digi TX54 5G with Digi Remote Manager

SPECIFICATIONS	DIGI TX54 5G WITH DIGI 360*
SOFTWARE AND MANAGEMENT*	
REMOTE MANAGEMENT	Digi Remote Manager (cloud based), SNMP v2c/v3 (user installed/managed), SMS
LOCAL MANAGEMENT	Web UI (HTTPS), CLI (SSH, serial)
MANAGEMENT TOOLS	SFTP, SCP, protocol analyzer with PCAP for Wireshark, event logging with Syslog
MEMORY	
RAM / FLASH	256 MB / 512 MB
PHYSICAL	
DIMENSIONS	146 mm x 210 mm x 63.5 mm (5.75 in x 8.25 in x 2.5 in)
WEIGHT	1.5 kg (3.3 lbs)
STATUS LEDS	Power, WWAN signal and service (per module), Wi-Fi service (per module), GNSS, Ethernet (link, activity)
ENCLOSURE / RATING	Aluminum / IP54
POWER REQUIREMENTS	
POWER INPUT	9 – 36 VDC, ignition sense, reverse polarity protection
POWER CONNECTOR	Screw down removable terminal block
POWER CONSUMPTION	13 W typical (idle); 20 W (peak RF 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	0% to 95% (non-condensing)
NEMA	Meets the NEMA TS2 environmental requirements
APPROVALS**	
CELLULAR	PTCRB, AT&T, FirstNet Trusted™, T-Mobile, Verizon, Verizon Frontline visit digi.com/resources/certifications for latest approvals and updates
SAFETY	EN 60950, EN 62368, CB scheme
VEHICLE	ISO 7637-2/3, ISO 10605, ISO 16750-2 Pulses 4/5a/5b, SAE J1113, E-Mark (UNECE Reg. 10)
EMISSIONS / IMMUNITY	CE, FCC Part 15 Class B, AS/NZS CISPR 22, EN 55024, EN 55032
ENVIRONMENTAL	MIL-STD-810G (temperature, humidity, vibration, shock, dust)
WARRANTY***	
PRODUCT WARRANTY	1-year

*Includes the Digi 360 solution for Digi TX54 (1-year) with Digi Remote Manager, warranty and customer care.
**Visit digi.com/resources/certifications for latest approvals and updates.
***Product warranty can be extended with Digi 360 extensions or renewals.
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DIGI TX54 5G WITH DIGI 360

Product Photos and Technologies

Digi TX54 Product Photos

Digi TX54 dual Wi-Fi — front

Digi TX54 dual Wi-Fi — back

Digi TX54 — front

Digi TX54 — back

Digi TX54 dual cellular — front

Digi TX54 dual cellular — back

Featured Technologies

5G

FIRSTNET® Built with AT&T

VerizonFrontline

OnGo

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DIGI TX54 5G WITH DIGI 360

Part Numbers

PART NUMBERS	DIGI TX54 WITH DIGI 360*
TX54-A152	Digi TX54 5G — single 5G, dual Wi-Fi, global
TX54-A156	Digi TX54 5G — single 5G, Wi-Fi, global
TX54-A256	Digi TX54 5G — dual 5G, Wi-Fi, global
TX54-A146	Digi TX54 Primary Responder — single LTE-Advanced Pro Cat 12, Wi-Fi, North America
TX54-A246	Digi TX54 Primary Responder — dual LTE-Advanced Pro Cat 12, Wi-Fi, North America

*Includes the **Digi 360** solution for **Digi TX54** (1-year) with **Digi Remote Manager**, **warranty** and **customer care**.

PART NUMBERS	AVAILABLE ACCESSORIES**
76002145	Digi TX54 5G accessory kit — dual Wi-Fi
76002143	Digi TX54 5G accessory kit — single cellular
76002144	Digi TX54 5G accessory kit — dual cellular
76002084	Digi TX54 4G accessory kit — single cellular
76002085	Digi TX54 4G accessory kit — dual cellular
76002091	Digi TX54 DIN rail bracket
76002121	Digi TX power supply — extended temperature range

**Sold separately, unless otherwise noted.

PART NUMBERS	DIGI 360 EXTENSIONS AND RENEWALS
DIGI360-TX54-EXT-2YR	Digi 360 extension for two additional years for Digi TX54
DIGI360-TX54-EXT-4YR	Digi 360 extension for four additional years for Digi TX54
DIGI360-TX54-REN-1YR	Digi 360 renewal for one additional year for Digi TX54
DIGI360-TX54-REN-3YR	Digi 360 renewal for three additional years for Digi TX54
DIGI360-TX54-REN-5YR	Digi 360 renewal for five additional years for Digi TX54

PART NUMBERS	VALUE-ADDED SERVICES
DIGI-RM-PRM-CS	Digi Containers subscription — 1-year subscription
DIGI-SRV-WB-TIER1-1YR	Digi WAN Bonding subscription with 100 Mbps max throughput — 1-year subscription
DIGI-SRV-WB-TIER2-1YR	Digi WAN Bonding subscription with 200 Mbps max throughput — 1-year subscription
DIGI-SRV-WB-TIER3-1YR	Digi WAN Bonding subscription with 1 Gbps max throughput — 1-year subscription
DIGI-SRV-MVPN-TIER1-INSTALL	Digi Mobile VPN installation, less than 500 routers (one-time fee, installation for subscriptions up to 500 routers)
DIGI-SRV-MVPN-PR-TIER1-1YR	Digi Mobile VPN subscription (Primary Responder), less than 500 routers — 1-year subscription
DIGI-SRV-MVPN-TIER1-1YR	Digi Mobile VPN subscription, less than 500 routers — 1-year subscription

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