



# 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.

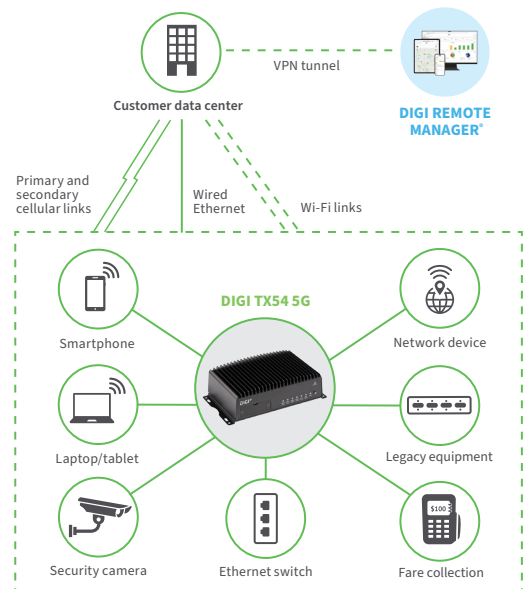
Four Gigabit Ethernet ports connect other IP-capable systems, each configurable as an isolated secure LAN, or all four can function as a Layer 2 switch. **Digi TrustFence**®, a suite of hardware and firmware features, ensures the integrity of Digi TX54 security functions, and chip-level encryption protects 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.

## 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



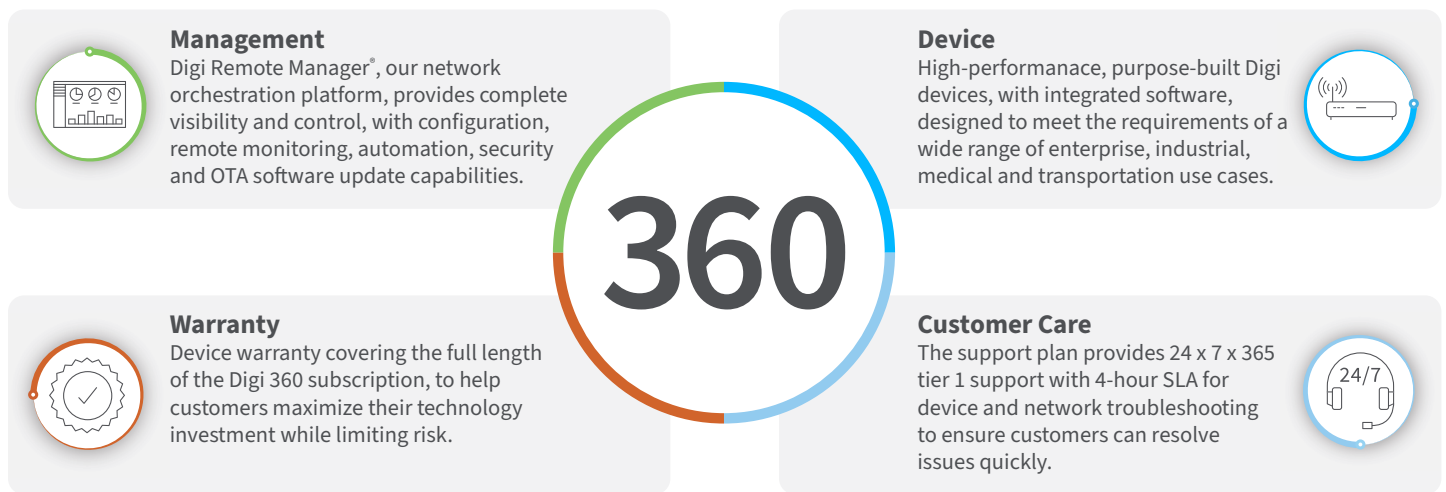
## Related Digi transportation router solutions



## 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](https://www.digi.com/digi360).



## 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.

## 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](https://www.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](https://www.digi.com/digi-remote-manager).

### Digi RM infrastructure and security

- Hosted in a commercial-grade cloud server environment that meets SOC 1<sup>o</sup>, SOC 2<sup>o</sup> and SOC 3<sup>o</sup> 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<sup>o</sup> (CIS<sup>o</sup>)
- Enables compliance with security frameworks like ISO27002, HIPAA, NIST and more
- Earned Skyhigh's CloudTrust™ Program highest rating of Enterprise-Ready

## Digi TrustFence

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



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](https://www.digi.com/trustfence).



## 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 nttcp 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

## 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

## 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\*\*

<b>5G MODELS</b>	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
<b>4G LTE-ADVANCED PRO MODELS (UNITED STATES / CANADA)</b>	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
<b>4G LTE-ADVANCED MODELS (GLOBAL)</b>	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
<b>CONNECTORS</b>	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)
<b>SIM SLOTS</b>	Single cellular models: (2) Mini-SIM (2FF) Dual cellular models: (4) Mini-SIM (2FF)
<b>SIM SECURITY</b>	SIM slot cover plate included

##### WI-FI

<b>TECHNOLOGY</b>	Wi-Fi 5 (802.11ac) 2.4 GHz and 5 GHz, 2 x 2 MIMO
<b>SECURITY</b>	WPA, WPA2 and WPA3 Personal and Enterprise, Open and Open Enhanced security standards
<b>HOTSPOT</b>	Captive portal with customizable splash page, terms and conditions, shared password, user-specific password, RADIUS authentication
<b>THIRD-PARTY SERVICES</b>	Content filtering, embedded advertising
<b>MODES</b>	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
<b>CONNECTORS</b>	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

<b>TECHNOLOGY</b>	Bluetooth® 4.2
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##### GNSS

<b>TECHNOLOGY</b>	GPS, Galileo, BeiDou and GLONASS with Untethered Dead Reckoning (UDR), multiple geofence support
<b>SENSITIVITY</b>	Tracking and navigation: -163 dBm
<b>PROTOCOL</b>	NMEA and TAIP
<b>CONNECTOR</b>	(1) 50 Ω SMA (center pin: female); +3.3 VDC active antenna drive

#### WIRED INTERFACES

##### ETHERNET

<b>PORTS / CONNECTOR</b>	(4) RJ-45; 10/100/1000 Mbps Base-T (auto-sensing); IEEE 802.3; configurable as WAN or LAN
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##### SERIAL

<b>PORTS / CONNECTOR</b>	(1) RS-232; DB-9 male (DTE)
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##### USB

<b>PORTS / CONNECTOR</b>	(3) USB 3.0 Type A
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\*Includes the Digi 360 solution for Digi TX54 (1-year) with Digi Remote Manager, warranty and customer care.

\*\*Visit [digi.com/resources/certifications](http://digi.com/resources/certifications) for latest approvals and updates.

## 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*
<b>SOFTWARE AND MANAGEMENT*</b>		
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
<b>MEMORY</b>		
RAM / FLASH		256 MB / 512 MB
<b>PHYSICAL</b>		
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
<b>POWER REQUIREMENTS</b>		
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)
<b>ENVIRONMENTAL</b>		
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
<b>APPROVALS**</b>		
CELLULAR		PTCRB, AT&T, FirstNet Trusted™, T-Mobile, Verizon, Verizon Frontline visit <a href="https://www.digi.com/resources/certifications">digi.com/resources/certifications</a> 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)
<b>WARRANTY***</b>		
PRODUCT WARRANTY		1-year

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

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\*\*\*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



\*FirstNet® and FirstNet Ready™ are registered trademarks and service marks of the First Responder Network Authority. All other trademarks are the property of their respective owners.

## 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



For more information about Digi TX54 5G,  
visit [www.digi.com/tx54-5g](http://www.digi.com/tx54-5g).

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