Digi TX64 5G Rail

5G railway-rated cellular router customized for both on-board heavy and light rail railways and metros

Ideal for challenging rail transportation environments, the **Digi TX64 5G Rail** router offers 5G/4G/3G cellular connectivity with true enterprise class routing, security, firewall and integrated VPN — easy to deploy and centrally managed via **Digi Remote Manager**® (Digi RM), which is included in your **Digi 360** solution. (See page 2.) It offers a flexible interface design with an integrated Wi-Fi 6 access point and client, USB, serial, inertial-guided GNSS, Bluetooth® and 4-port Gigabit Ethernet switch, as well as a variety of configuration options.

5G is a game-changer for the rail industry. Until now, the speeds needed to securely move massive amounts of data quickly were reserved for wired networks. But today, with the rapid expansion of 5G (with LTE fallback), this fully rail-certified device delivers 5G performance, either as a primary or failover connection.

Customers and suppliers alike will begin to expect 5G connectivity whether it is for other on-board equipment applications or the information being provided to riders. Paving the way for compatibility with FRMCS standards, this first industry-standard 5G rail-rated device prepares you for the future today.

Digi TX64 5G Rail is equipped with precision train positioning via an Untethered Dead Reckoning (UDR) module that reports location data more accurately by taking into account acceleration, speed and angular rate. Regardless of issues with traditional GNSS in certain weather conditions or tunnels, UDR allows you to monitor the train's exact positioning and speed, optimize each train's location and prevent collisions without the use of additional onboard systems.

Digi TX64 5G Rail features **FirstNet Trusted**™ support to meet the critical demands of first responders for emergency communications. Digi TX64 5G Rail also meets the U.S. government cybersecurity **FIPS 140-2** standard and supports the **Digi TrustFence**® security framework to ensure it is secure on day one and stays secure throughout its life.

Related Digi transportation router solutions

Digi TX64 5G

Digi TX54 5G

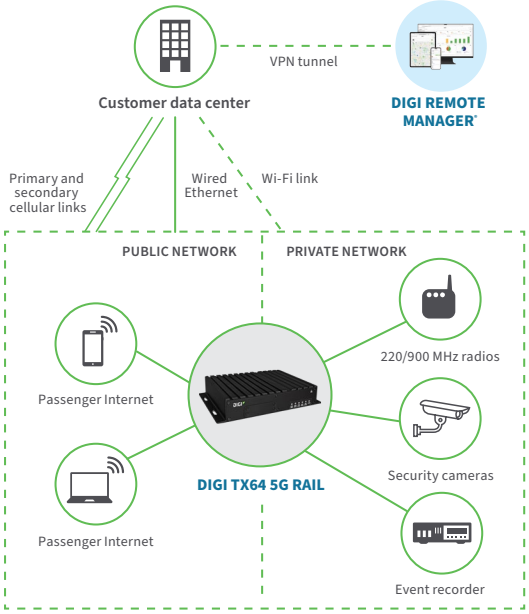
Digi TX40 5G

Digi Remote Manager

Key features, benefits and applications

- High-speed 5G NR cellular radio with 4G LTE-Advanced Pro Cat 20 and 3G fallback
- **FirstNet Trusted**™ for primary responders communication
- Meets U.S. government **FIPS 140-2** cybersecurity standard
- WR44 RR drop-in replacement and upgrade
- Wired Gigabit M12 Ethernet (4-port) for onboard systems
- Dual concurrent Wi-Fi 6 2 x 2 backhaul, with passenger Wi-Fi over Wi-Fi 6 2 x 2 access point
- Wired Gigabit M12 Ethernet (4-port) for onboard systems
- Cryptographic co-processor with secure key generation/storage
- Includes the **Digi 360** solution with warranty, customer care and **Digi Remote Manager** cloud management, enabling you to easily deploy, mass configure and maintain in-vehicle 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 TX64 5G RAIL 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 TX64 5G Rail**, 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 TX64 5G RAIL 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 TX64 5G RAIL WITH DIGI 360

Specifications

Manage and configure Digi TX64 5G Rail with Digi Remote Manager

SPECIFICATIONS	DIGI TX64 5G RAIL WITH DIGI 360*
WIRELESS INTERFACES	
CELLULAR / WWAN**	
5G SUB-6 GHZ WITH 4G LTE-ADVANCED PRO AND 3G FALLBACK — GLOBAL	**5G Sub-6:** n1, n2, n3, n5, n7, n8, n12, n20, n25, n28, n38, n40, n41, n48 CBRS, n66, n71, n77, n78, n79, C-band; **4G LTE:** 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, B43, B46, B48 CBRS, B66, B71 **3G:** B1, B2, B3, B4, B5, B6, B8, B9, B19
CONNECTORS	(4) 50 Ω TNC (center pin: female)
SIM SLOTS	(2) mini-SIM (2FF)
SIM SECURITY	SIM slot cover plate included
WI-FI	
TECHNOLOGY	**Private backhaul:** Wi-Fi 6 (802.11ax), 2.4 / 5 GHz, 2 x 2 MIMO, up to 128 clients **Public Wi-Fi:** Wi-Fi 6 (802.11ax), 2.4 / 5 GHz, 2 x 2 MIMO, up to 128 clients
HOTSPOT	Captive portal with customizable splash page
AUTHENTICATION	Basic terms and conditions acceptance, enterprise RADIUS, shared password, HotSpotSystem
THIRD-PARTY SERVICES	Content filtering, embedded advertising
MODES	Up to 8 access points and 1 client per Wi-Fi module (16 + 2 total)
CONNECTORS	**Private backhaul:** (2) 50 Ω RP-TNC (center pin: male) **Public Wi-Fi:** (2) 50 Ω RP-TNC (center pin: male)
GNSS	
TECHNOLOGY	GPS, Galileo, BeiDou and GLONASS with Untethered Dead Reckoning (UDR), multiple geofence support
SENSITIVITY	Tracking and navigation: −160 dBm
PROTOCOL	NMEA 0183 4.0, TAIP
CONNECTOR	(1) 50 Ω RP-TNC (center pin: male); +3.3 VDC active antenna drive
WIRED INTERFACES	
ETHERNET	
PORTS / CONNECTOR	(4) M12 X-CODE / IEEE 802.3; 10/100/1000 Base-T
SERIAL	
PORTS / CONNECTOR	(1) RS-232; DB-9 male
USB	
PORTS / CONNECTOR	(2) USB 3.0 Type A

*Includes the **Digi 360** solution for **Digi TX64 5G Rail** (1-year) with **Digi Remote Manager**, **warranty** and **customer care**.
Visit **digi.com/resources/certifications for latest certifications and updates.

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DIGI TX64 5G RAIL WITH DIGI 360

Specifications and Warranty

Manage and configure Digi TX64 5G Rail with Digi Remote Manager

SPECIFICATIONS	DIGI TX64 5G RAIL 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	2 GB / 8 GB
PHYSICAL	
DIMENSIONS	260 mm x 196 mm x 51 mm (10.2 in x 7.8 in x 2 in)
WEIGHT	3.9 kg (8.6 lbs)
STATUS LEDS	Power, WWAN (signal, service) per module, Wi-Fi service (per module), GNSS service, LAN (link, activity)
ENCLOSURE / RATING	Aluminum alloy / IP66
POWER REQUIREMENTS	
POWER INPUT	9 – 36 VDC, 60 W minimum power source required, reverse polarity protection, M12 T-CODE with ignition sense
POWER CONSUMPTION	28 W typical (idle), 41 W (peak RF Tx/Rx)
ENVIRONMENTAL	
MOUNTING	Slotted mounting flanges, grounding stud
OPERATING TEMPERATURE	−40 °C to 74 °C (−40 °F to 165.2 °F)
STORAGE TEMPERATURE	−40 °C to 85 °C (−40 °F to 185 °F)
RELATIVE HUMIDITY	0% to 95% (non-condensing) at 25 °C (77 °F)
APPROVALS**	
CELLULAR	PTCRB, AT&T, FirstNet Trusted™, T-Mobile, Verizon; visit **digi.com/resources/certifications** for latest cellular certifications
SHOCK / VIBRATION	MIL-STD-810G: vibration (Method 414.6C-10, Category 11), shock (Method 516.6, Procedure I)
EMISSIONS / IMMUNITY	FCC Part 15 Class B, EN 50121-3-2, CISPR 16-2-3
ENVIRONMENTAL / INDUSTRIAL	EN 50155, EN 45545-2, IEC 60068-2-1/2-2/2-30
WARRANTY***	
PRODUCT WARRANTY	1-year

*Includes the **Digi 360** solution for **Digi TX64 5G Rail** (1-year) with **Digi Remote Manager**, **warranty** and **customer care**.
Visit **digi.com/resources/certifications for latest certifications and updates.
***Product warranty can be extended with **Digi 360** extensions or renewals.

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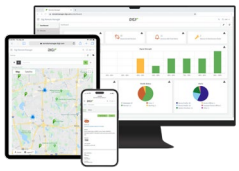
DIGI TX64 5G RAIL WITH DIGI 360

Software, Photos and Technologies



Manage and configure Digi TX64 5G Rail with Digi Remote Manager

ENTERPRISE SOFTWARE	DESCRIPTION
PROTOCOL SUPPORT	HTTPS, FTP client, TLS v1.2, SNMP (v2c/3), SSH; remote management via **Digi Remote Manager**; serial Modbus, MQTT client, protocol analyzer, DynDNS, Dynamic DNS client compatible with BIND9/No-IP/DynDNS; DMNR; Dual-APN; X.509 certificate management; VRRP+
SECURITY	IP filtering, stateful firewall, custom firewall rules (iptables), address and port translation; User Authentication: 2-factor authentication, RADIUS, TACACS+; certificates; MAC address filtering; VLAN support
VPN	IPSec with IKEv1, IKEv2, NAT Traversal, DMVPN; 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: groups 1-32
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, mDNS, IPerf
LOCAL MANAGEMENT	Web interface (HTTPS); CLI (SSH, serial port); SNMP v2c/v3 read-only; 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, CLI, Web UI, Intelliflow
PROGRAMMING TOOLS / ENVIRONMENTS	Python v3 (regularly updated to newest version)

*For a comprehensive list of operating system features, please visit **digi.com/solutions/by-technology/dal-operating-system/features**.

Product Photos

Digi TX64 5G Rail — front

Digi TX64 5G Rail — back

Featured Technologies

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DIGI TX64 5G RAIL WITH DIGI 360

Part Numbers

PART NUMBERS	DIGI TX64 RAIL WITH DIGI 360*
TX64-R210	Digi TX64 5G Rail router — 5G / LTE-Advanced Pro Cat 20, dual Wi-Fi, UDR, global

*Includes the **Digi 360** solution for **Digi TX64 5G Rail** (1-year) with **Digi Remote Manager**, **warranty** and **customer care**.

PART NUMBERS	AVAILABLE ACCESSORIES**
76002108	Digi TX64 5G Rail power, M12 T-code female connector, 5 m
76002109	Digi TX64 5G Rail Ethernet to WR44 RR adapter cable

**Sold separately, unless otherwise noted.

PART NUMBERS	DIGI 360 EXTENSIONS AND RENEWALS
DIGI360-TX64-EXT-2YR	Digi 360 extension for two additional years for Digi TX64
DIGI360-TX64-EXT-4YR	Digi 360 extension for four additional years for Digi TX64
DIGI360-TX64-REN-1YR	Digi 360 renewal for one additional year for Digi TX64
DIGI360-TX64-REN-3YR	Digi 360 renewal for three additional years for Digi TX64
DIGI360-TX64-REN-5YR	Digi 360 renewal for five additional years for Digi TX64

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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