



CELLULAR CAT 20/ DUAL WI-FI  
MOBILE ACCESS RAIL ROUTER



# TX64 Rail Router

High performance mobile access rail router with gigabit cellular communications for transit and transportation systems

Ideal for challenging rail transportation environments, the TX64 rail router is a gigabit-class LTE-Advanced Pro router with true enterprise class routing, security, firewall and integrated VPN. It offers a flexible interface design with an integrated Wi-Fi access point/client, USB, serial, inertial-guided GNSS and 4-port Ethernet switch.

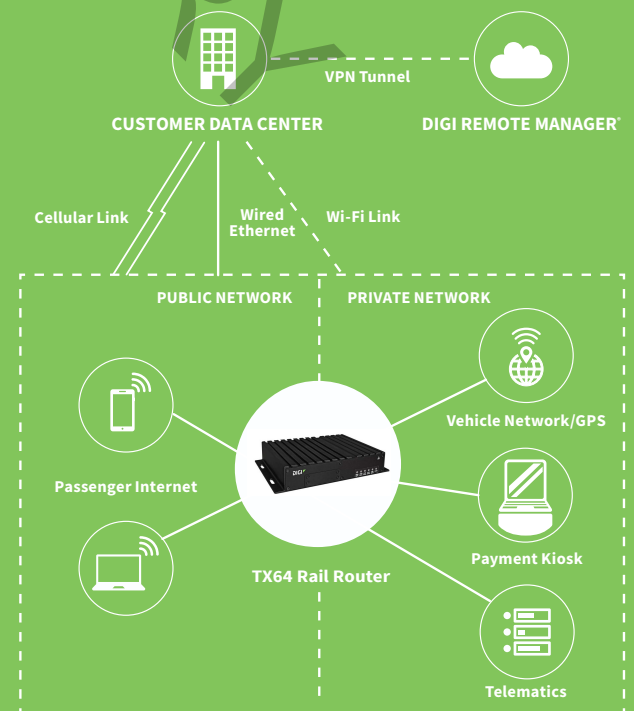
Internet access for riders, if enabled, is managed securely and segmented from onboard bus systems. Onboard systems retain priority and any remaining bandwidth is made available to Internet traffic.

The TX64 rail router is an enterprise-class router designed to provide secure routing and gateway functions across traditional and wireless communications networks, protocols and interfaces. It bridges local private wired or wireless subnets across a public or untrusted network, ensuring message privacy and integrity, using trusted channels with authenticated systems. System operation is assured through design and verification to relevant industry standards. And an embedded python environment enables quick adaptation to future evolving system requirements.

## FEATURES AND BENEFITS

- 5G-ready platform: future-built with powerful quad-core processor and PCIe 2.0 internal data buses
- LTE Advance Pro 2.0 Gbps CAT 20 cellular interface
- Wired Gigabit Ethernet (4-port) for onboard systems
- Dual concurrent 867 Mbps 802.11ac Wi-Fi interfaces
- Untethered dead reckoning combines GNSS with inertial sensors
- Securely deploy, monitor and control devices with Digi Remote Manager®
- Cryptographic co-processor with secure key generation and storage

## APPLICATION EXAMPLE



## RELATED PRODUCTS



Digi TX54



Digi TX64



Digi WR44 RR



Accessories



Digi Remote Manager®

SPECIFICATIONS		TX64 Rail Router
<b>WIRELESS INTERFACES</b>		
<b>WWAN*</b>		
Digi Ordering SKU	TX64-R210, TX64-R210-PR	
CELLULAR MODULE LTE-ADVANCED PRO CAT 20 WORLDWIDE	LTE FDD: B1 (2100), B3 (1800), B7 (2600), B8 (900), B12 (700ac), B13 (700c), B14 (700PS), B20 (800DD), B25 (1900); B26 (US 850 Ext), B28 (700 APAC), B29 (US 700de Lower); B30 (2300 WCS), B32 (1500), B48 (3600), B66 (AWS-3), B71 (600); LTE TDD: B38 (2600), B39 (1900), B40 (2300), B41 (2500), B42 (3500), B43 (3600), B46 (5200); Transfer rate (max): 2.0 Gbps down, 320 Mbps up per module (Cat 20)	
CONNECTOR	4 x 50 Ω TNC per module (center pin: female)	
SIM SLOTS	2 mini-SIM (2FF)	
SIM SECURITY	SIM slot cover plate included	
<b>WI-FI</b>		
DUAL MODULES	Private backhaul: 2 x 2 MU-MIMO 5 GHz 802.11 a/n/ac Wave 2, 867 Mbps (max) Public Wi-Fi: 2 x 2 MIMO 2.4/5 GHz 802.11 a/b/g/n/ac, 867 Mbps (max)	
HOTSPOT	Captive portal, customizable splash page	
AUTHENTICATION	Basic ToS acceptance, Enterprise RADIUS	
3RD 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	Private backhaul: 2 x 50 Ω RP-TNC (center pin: male) Public Wi-Fi: 2 x 50 Ω RP-TNC (center pin: male)	
<b>GPS</b>		
TECHNOLOGY	Untethered dead reckoning using inertial sensors (accelerometer, gyroscope); multi-constellation (GPS, Galileo, GLONASS, BeiDou)	
SENSITIVITY	-163 dB	
PROTOCOL	NMEA 0183 V2.3 sentence output	
CONNECTOR	1 x 50 Ω SMA (center pin: female); +3.3 VDC active antenna drive	
<b>HARDWARE</b>		
<b>SERIAL</b>		
PORTS / CONNECTOR	1 RS-232; DB-9 male	
<b>ETHERNET</b>		
PORTS / CONNECTOR	4; M12 X-CODE	
STANDARD	IEEE 802.3; 10/100/1000 Base-T	
<b>USB</b>		
PORTS	2	
STANDARD	USB 3.0, Type A	
<b>MEMORY</b>		
RAM	2 GB	
FLASH	8 GB (CFAST card)	
<b>PHYSICAL</b>		
DIMENSIONS	7.8 in x 10.2 in x 2.0 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	IP65 aluminum alloy	
<b>POWER</b>		
POWER INPUT	9 - 36 VDC, 60 W minimum power source required	
POWER CONSUMPTION	28 W typical (idle); 41 W (peak RF Tx/Rx)	
<b>ENVIRONMENTAL</b>		
MOUNTING	Slotted mounting flanges, grounding stud	
OPERATING TEMPERATURE	-34° C to 74° C (-29.2° F to 165.2° F)	
STORAGE TEMPERATURE	-40° C to 85° C (-40° F to 185° F)	
RELATIVE HUMIDITY	0% to 95% (non-condensing) @ 25° C (77° F)	

\*Transfer rates are network operator dependent

# PRELIMINARY

SPECIFICATIONS	TX64 Rail Router
APPROVALS	
CELLULAR	PTCRB, AT&T, Verizon, T-Mobile
SHOCK/VIBE	EN 61373
EMISSIONS/IMMUNITY	FCC PART 15 Class B, EN 50121-3-2, IEC 61000-4-2/4-3, CISPR 16-2-3
ENVIRONMENTAL/INDUSTRY	EN50155, IEC 60068-2-1/2-2/2-30, ISO 7637-2/3, ISO 16750-2 load dump
WARRANTY	
PRODUCT WARRANTY	3-year

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; Protocol analyzer, ability to capture PCAP for use with Wireshark; DynDNS; Dynamic DNS client compatible with BIND9/No-IP/DynDNS; 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; GRE; Multicast routing; Routing protocols: RIP (v1, v2) OSPF, BGP; IP failover: VRRP; automatic failover, 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)
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 v3.6.10

## PRODUCT IMAGES

FRONT



BACK



# 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](http://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