





### DIGITX645G

## High performance cellular router with dual redundant communications for complex transit and transportation systems

Ideal for challenging transportation and mobile environments, Digi TX64 is a 5G and 4G LTE-Advanced Pro cellular router with true enterprise class routing, security, firewall and integrated VPN. It offers a flexible interface design with an integrated Wi-Fi access point, USB, serial and 4-port Gigabit Ethernet switch, as well as a variety of configuration options including dead reckoning GNSS and Bluetooth®.

Internet access for riders is managed securely and without impact to onboard bus systems. Technologies like 5G NR, EN DC and carrier aggregation deliver up to Gigabit speeds to passengers. Onboard systems retain priority and any remaining bandwidth is made available to Internet traffic.

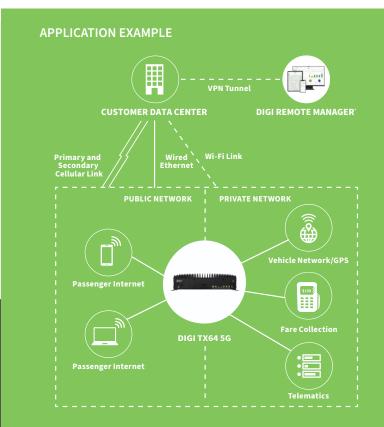
A captive portal and splash page enable term acceptance, targeted messaging and agency branding. Standard HTTP/ DNS redirect can be used to block malware and unwanted content through popular third-party service providers or an agency server. FirstNet Ready™ devices provide additional support for critical primary responder communication.

Reliable power circuitry supports 9-36 VDC input with ignition sense for direct integration into the vehicle's power source. Dual cellular and dual Wi-Fi modules provide true segmented traffic flow of private and public data for fare collection, CAD/AVL data, camera log backhaul and passenger Wi-Fi access.

#### **FEATURES AND BENEFITS**

- 5G platform: future-built with powerful quad-core processor
- Segmented private and public data communication across 5G NR Sub-6 GHz, 4G LTE-Advanced Pro and 4G LTE-Advanced modems
- FirstNet Ready™ for primary responder communication
- Wired Gigabit Ethernet (4-port) for onboard systems
- Video and vehicle data offload over Wi-Fi 5 4x4 backhaul
- Passenger Wi-Fi over Wi-Fi 5 2x2 access point
- Digi Remote Manager® platform for easy setup, mass configuration and management

# RELATED PRODUCTS Digi TX54 Digi TX64 5G Rail Digi IX20 Digi IX10 Digi Remote Manager\*



SPECIFICATIONS	DIGI TX64
WIRELESS INTERFACES  WWAN*	
5G NR SUB-6 GHZ WITH 4G LTE- ADVANCED PRO AND 3G FALLBACK (TX64-161)	5G NR Sub-6: n1, n2, n3, n5, n28, n41, n66, n71, n78, n79; 4G LTE-Advanced Pro: B1, B2, B3, B4, B5, B7, B8, B12, B13, B14 - FirstNet®, B18, B19, B20, B25, B26, B28, B29, B30, B32, B34, B38, B39, B40, B41, B42, B43, B46, B48, B66, B71; 3G: B1, B2, B3, B4, B5, B6, B8, B9; Cat 20
4G LTE-ADVANCED PRO (TX64-141)	LTE FDD: B1, B3, B7, B8, B12, B13, B14 - FirstNet®, B20, B25, B26, B28, B29; B30, B32, B48, B66, B71; LTE TDD: B38, B39, B40, B41, B42, B43, B46; 3G: B1, B2, B4, B5, B8; Cat 18
4G LTE-ADVANCED WITH 3G FALLBACK (TX64-121)	LTE FDD: B1, B2, B3, B4, B5, B7, B8, B12, B13, B17, B20, B25, B26, B28, B29, B30, B66; LTE TDD: B38, B40, B41; 3G: B1, B2, B4, B5, B8; Cat 11
CONNECTOR	(2) or (4) 50 Ω SMA per module (center pin: female)
SIM SLOTS	(2) mini-SIM (2FF) per module (4 total)
SIM SECURITY	SIM slot cover plate included
WI-FI	
DUAL MODULES	Private backhaul: 4 x 4 MU-MIMO 5 GHz 802.11 a/n/ac Wave 2, up to 128 stations per module, 1.733 Gbps (max) Public Wi-Fi: 2 x 2 MIMO 2.4/5 GHz 802.11 a/b/g/n/ac, up to 128 stations per module, 867 Mbps (max)
НОТЅРОТ	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)
CONNECTORS	Private backhaul: (4) 50 $\Omega$ RP-SMA (center pin: male) Public Wi-Fi: (2) 50 $\Omega$ RP-SMA (center pin: male)
BLUETOOTH®	
MODULE	BLE 4.2
GPS	
TECHNOLOGY	Multi-constellation: concurrent reception (GPS, Galileo, GLONASS, BeiDou)
SENSITIVITY	-163 dB
PROTOCOL	NMEA 0183 V 2.3 sentence output
CONNECTOR	(1) 50 Ω SMA (center pin: female); +3.3 VDC active antenna drive
HARDWARE	
SERIAL	
PORTS / CONNECTOR	(1) RS-232; DB-9 male
ETHERNET	
PORTS / CONNECTOR	(4) RJ-45
STANDARD	IEEE 802.3; 10/100/1000 Base-T
USB	
PORTS	3
STANDARD	USB 3.0, Type A
MEMORY	
RAM	2 GB
FLASH	8 GB (CFAST card)
PHYSICAL	
DIMENSIONS	260 mm x 196 mm x 67 mm (10.2 in x 7.8 in x 2.6 in)
WEIGHT	3.3 kg (7.25 lbs)
STATUS LEDS	Power, WWAN (signal, service) per module, Wi-Fi service (per module), GNSS service, LAN (link, activty)
ENCLOSURE	IP40 aluminum alloy
POWER	
POWER INPUT	9 - 36 VDC, 60 W minimum power source required
POWER CONSUMPTION	28 W typical (idle); 41 W (peak RF Tx/Rx)

<sup>\*</sup>Transfer rates are network operator dependent



SPECIFICATIONS	DIGI TX64
ENVIRONMENTAL	
MOUNTING	Flexible mounting options
OPERATING TEMPERATURE	-30° C to 70° C (-22° F to 158° F)
STORAGE TEMPERATURE	-40° C to 85° C (-40° F to 185° F)
RELATIVE HUMIDITY	0% to 95% (non-condensing) @ 25° C (77° F)
NEMA	
SPECIFICATION	Meets or exceeds the NEMA TS2 environmental requirements (-34 $^{\circ}$ C to 74 $^{\circ}$ 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, T-Mobile, FirstNet Ready™, Verizon, PNTM, Verizon Frontline; Visit www.digi.com/resources/certifications for latest cellular certifications
SAFETY	UL 60950/EN62368, CSA 22.2 No. 60950
EMISSIONS / IMMUNITY	CE, FCC Part 15 Class B w/ IC, EN303413+EN301489-1/-19, CISPR 25, Level 3, ISO 11452-2, ISO 11452-4
ENVIRONMENTAL / INDUSTRIAL	MIL-STD-810G (temperature, humidity, vibration, shock, dust)
VEHICLE	SAE J1113-2 / J1455, ISO 7637-2/3, ISO 10605, ISO16750-2 load dump
WARRANTY	
PRODUCT WARRANTY	3-year**

<sup>\*\*</sup>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	HTTPS, FTP client, TLS v1.2, SNMP (v3), 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; 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 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)

 $For a comprehensive list of operating system features, please visit {\color{red}www.digi.com/solutions/by-technology/dal-operating-system/features}.$ 

#### **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

#### **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

PART NUMBERS	DIGI TX64
TX64-A121	Digi TX64 - dual cellular LTE-Advanced Cat 11, dual Wi-Fi, global
TX64-A161	Digi TX64 - dual cellular 5G / LTE-Advanced Pro Cat 20, dual Wi-Fi, UDR, global

PART NUMBERS	DIGI TX64 - PRIMARY RESPONDER
TX64-A141	Digi TX64 - dual cellular LTE-Advanced Pro Cat 18, dual Wi-Fi, global, primary responder, FirstNet Ready, Verizon Frontline
TX64-A161-PR	Digi TX64 - dual cellular 5G / LTE-Advanced Pro Cat 20, dual Wi-Fi, UDR, global, primary responder, FirstNet Ready

PART NUMBERS*	ACCESSORIES
76002076	Digi TX64 power supply
76002069	Digi TX64-A121 accessory kit
76002087	Digi TX64-A141 / TX64-161 accessory kit
76000826	Cable - Ethernet, RJ-45 to RJ-45, 2 m
76002090	GNSS Untethered Dead Reckoning - roof mount antenna
76002089	GNSS Untethered Dead Reckoning - dash mount antenna

<sup>\*</sup>Sold separately, unless otherwise noted.

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