



Manage this device with Digi Remote Manager



# DIGI IX20

## Versatile networking for critical applications — rugged, secure LTE router

Digi IX20 is a full-featured cellular router that scales from general connectivity applications to industrial routing and security. Its flexible power and connectivity options make it a versatile choice for use in industrial infrastructure, digital signage, retail kiosks, service terminals and other critical assets with a need for secure transactions.

The high-performance architecture of the Digi IX20 router provides automatic and software-selectable primary and backup WWAN connectivity over multi-carrier cellular LTE. Digi IX20 supports advanced security (stateful firewall, MAC filtering and VPN), cellular redundancy (Digi SureLink®) and management (SNMP, event logging, analyzer trace and QoS), facilitating use in PCI or NERC-CIP compliant applications. FirstNet Trusted™ models are designed to meet the demands of primary responders for critical communications.

Gain critical insights into your deployed devices and manage your network with Digi Remote Manager® (Digi RM) — the command center for your deployment. Digi RM is a cloud-based solution that facilitates easy setup, mass configuration, maintenance and support, even for thousands of devices. In the event of an interruption to your primary network connection, Digi RM also provides secure, out-of-band management access to Digi IX20 through a serial port and command-line interface. Digi WAN Bonding provides WAN aggregation and immediate failover.

The Digi IX20 family of routers includes multiple options and models for global distribution and deployment. In addition, Digi IX20 is designed for Digi CORE® plug-in LTE modems that can be easily changed out or upgraded without replacing the entire router.

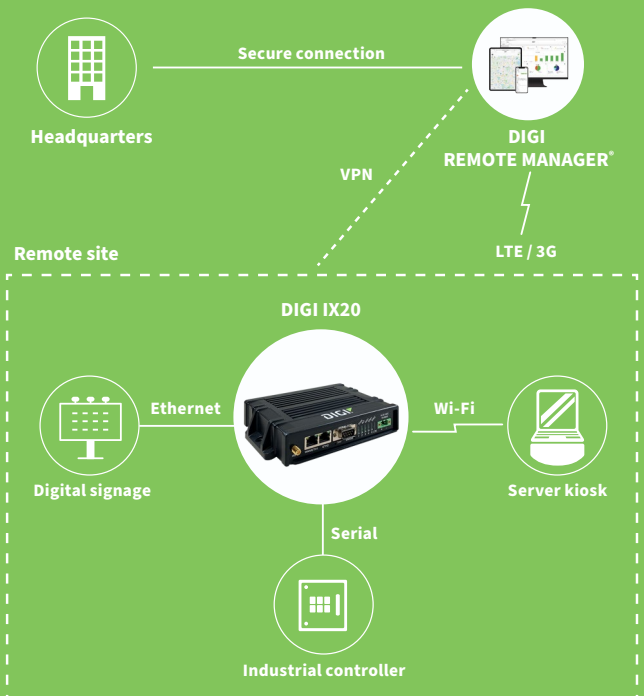
### FEATURES AND BENEFITS

- Compact and economical cellular routing platform with industrial feature set
- Redundant connectivity with dual SIMs and Digi SureLink
- FirstNet Trusted™ models for first responder communications
- Global bands support and options for global distribution, deployment and management
- Built-in Digi TrustFence® for device security, secure encrypted connections, ongoing monitoring and support
- Digi Remote Manager platform for easy setup, mass configuration and out-of-band management
- Dual Ethernet ports and single serial (RS-232) port

### RELATED PRODUCTS



### APPLICATION EXAMPLE



## SPECIFICATIONS

## DIGI IX20

## CELLULAR\*

<b>CERTIFICATIONS</b>	Visit <a href="http://www.digi.com/resources/certifications">www.digi.com/resources/certifications</a> for latest certifications
<b>LTE-A (07) WITH DIGI CORE PLUG-IN LTE MODEM 1003-CM07-OUS**</b>	LTE-Advanced Cat 7 (North America): B2, B4, B5, B7, B12, B13, B14 — FirstNet®, B25, B26, B41, B42, B43, B48, B66, B71; 3G: B2, B5; Transfer rate (max): 300 Mbps down, 150 Mbps up; Industrial temperature
<b>LTE (G4) WITH DIGI CORE PLUG-IN LTE MODEM 1002-CMG4-GLB**</b>	LTE Cat 4 (Global): B1, B2, B3, B4, B5, B7, B8, B12, B13, B18, B19, B20, B25, B26, B28, B38, B39, B40, B41; 3G: B1, B2, B4, B5, B6, B8, B19; 2G: 850 / 900 / 1800 / 1900 MHz; Transfer rate (max): 150 Mbps down, 50 Mbps up; Industrial temperature
<b>LTE (G4) WITH DIGI CORE PLUG-IN LTE MODEM 1002-CMG4-GLB-G**</b>	LTE Cat 4 (EMEA): B1, B2, B3, B4, B5, B7, B8, B12, B13, B18, B19, B20, B25, B26, B28, B38, B39, B40, B41; 3G: B1, B2, B4, B5, B6, B8, B19; 2G: 850 / 900 / 1800 / 1900 MHz; Transfer rate (max): 150 Mbps down, 50 Mbps up; Industrial temperature
<b>LTE (N4/P4) WITH DIGI CORE PLUG-IN LTE MODEM 1002-CMF4-OUS**</b>	LTE Cat 4 (North America): B2, B4, B5, B12, B13, B14 — FirstNet®, B66, B71; 3G: B2, B4, B5; Transfer rate (max): 150 Mbps down, 50 Mbps up; Industrial temperature
<b>LTE (45) WITH DIGI CORE PLUG-IN LTE MODEM 1002-CM45-OEU**</b>	LTE Cat 4 (EMEA); LTE Bands: B3, B7, B20, B31, B72; 450 MHz support; Transfer rate (max): 150 Mbps down, 50 Mbps up; Industrial temperature
<b>LTE (M1) WITH DIGI CORE PLUG-IN LTE MODEM 1002-CMM1-GLB**</b>	LTE Cat M1 / NB1 (North America): B1, B2, B3, B4, B5, B8, B12, B13, B18, B19, B20, B26, B28; 2G: 850 / 900 / 1800 / 1900 MHz; Transfer rate (max): M1: 300 kbps down, 375 kbps up; NB1: 21 kbps down, 62.5 kbps up; 2G: 296 kbps down, 236 kbps up; Industrial temperature
<b>CONNECTORS</b>	(2) 50 Ω SMA (center pin: female)
<b>SIM SLOTS</b>	(2) Mini-SIM (2FF)
<b>SIM SECURITY</b>	Secured in cellular module
<b>GNSS (1003-CM07 / 1002-CMG4-G)</b>	GPS, GLONASS, BeiDou, Galileo, QZSS; Connector: 50 Ω SMA (center pin: female); Protocol NMEA 0183 V3.0; Acquisition Time Hot Start 1 s; Warm Start 29 s; Cold Start 32 s; Accuracy Horizontal: < 2 m (50%), < 5 m (90%); Altitude: < 4 m (50%), < 8 m (90%); Velocity: < 0.2 m/s

## WI-FI

<b>MODULE</b>	1 x 1 SISO dual-band 802.11a/b/g/n/ac (2.4 GHz / 5 GHz)
<b>AUTHENTICATION</b>	TACACS+, Enterprise RADIUS
<b>MODES</b>	Client mode and access point mode simultaneously
<b>CLIENTS</b>	Maximum 10 clients (access point mode: regardless of combination of clients and access points)
<b>ACCESS POINTS</b>	Maximum 2 access points (access point mode: regardless of combination of clients and access points)
<b>SECURITY</b>	WPA/WPA-2 personal, WPA/WPA-2 enterprise
<b>CONNECTORS</b>	(1) 50 Ω SMA (center pin: male)

## SOFTWARE AND MANAGEMENT

<b>REMOTE MANAGEMENT</b>	Digi Remote Manager; SNMP v2/v3 (user installed/managed)
<b>LOCAL MANAGEMENT</b>	Web UI (HTTP/HTTPS); CLI (Telnet, SSH)
<b>MANAGEMENT/TROUBLESHOOTING TOOLS</b>	FTP client, SCP; protocol analyzer with PCAP for Wireshark; event logging with syslog and SMTP client; NTP/SNTP; Nagios, Intelliflow, iPerf, Dynamic DNS, ping, traceroute
<b>MEMORY</b>	256 MB RAM, 256 MB flash

## ETHERNET

<b>PORTS</b>	(2) RJ-45; 10/100 Mbps (auto-sensing)
<b>SERIAL</b>	
<b>PORTS</b>	(1) DB9M; RS-232 DTE; signal support TXD, RXD, CTS, DTR, DCD, flow control software (XON/OFF), hardware supported (CTS/RTS)

## PHYSICAL

<b>DIMENSIONS (L x W x H)</b>	107 mm x 162 mm x 35 mm (4.21 in x 6.38 in x 1.38 in)
<b>WEIGHT</b>	0.65 kg (1.4 lb)
<b>STATUS LEDs</b>	Power, Internet, Wi-Fi, SIM 1, SIM 2, signal strength (5), LTE
<b>ENCLOSURE</b>	Glass-filled polyphenylene sulphide (PPS) / IP30
<b>POWER REQUIREMENTS</b>	
<b>POWER INPUT</b>	9 - 30 VDC, 1.0 A maximum; Connector: 2-position rewirable plug with securing screws included
<b>POWER CONSUMPTION</b>	1.5 W (light traffic flow), 3.5 W (peak data transmission); 1.4 W (low power mode, idle traffic, no Ethernet WAN)
<b>ENVIRONMENTAL</b>	
<b>OPERATING TEMPERATURE</b>	Models with Wi-Fi: -20 °C to 70 °C (-4 °F to 158 °F); Models without Wi-Fi: -40 °C to 70 °C (-40 °F to 158 °F)
<b>STORAGE TEMPERATURE</b>	-40 °C to 85 °C (-40 °F to 185 °F)
<b>RELATIVE HUMIDITY</b>	5% to 95% (non-condensing)

\*Digi CORE plug-in LTE modem is included with the corresponding IX20 model, with the ability to upgrade or replace the modem without replacing the router. Transfer rates are network operator dependent.

\*\*Digi CORE 1003-CM07-OUS and 1002-CMG4-GLB-G require two cellular antennas with option for a third GNSS/GPS antenna. Digi CORE 1002-CMG4-GLB, 1002-CM45-OEU and 1002-CMF4-OUS require two cellular antennas. Digi CORE 1002-CMM1-GLB requires only one cellular antenna. Wi-Fi antenna available for Wi-Fi enabled models.

SPECIFICATIONS	DIGI IX20
<b>ACCESSORIES</b>	
<b>AVAILABLE ACCESSORIES</b>	Accessories not included. Available accessories: industrial extended temperature or commercial power supply (required), and Wi-Fi, cellular and GPS antennas, Ethernet cable, DIN rail clip kit and DIN rail mounting bracket kit (recommended / optional)
<b>APPROVALS</b>	
<b>CELLULAR</b>	Visit <a href="http://www.digi.com/resources/certifications">www.digi.com/resources/certifications</a> for latest cellular certifications
<b>SAFETY</b>	IEC62368-1, CB, EN62311
<b>ENVIRONMENTAL</b>	ROHS3
<b>EMISSIONS / IMMUNITY</b>	CE; RED; FCC Part 15, Subpart B; ICES-003; AU/NZS CISPR32
<b>WARRANTY</b>	
<b>PRODUCT WARRANTY</b>	3-year*

\*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
<b>PROTOCOL SUPPORT</b>	HTTPS, FTP client, 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 <a href="#">Digi Remote Manager</a> ; Protocol analyzer, ability to capture PCAP for use with Wireshark; DynDNS; Dynamic DNS client compatible with BIND9/No-IP/DynDNS; Captive portal, Intelliflow; Nagios, DNS server, NTP server, multicast, mDNS, IPPerf
<b>SECURITY</b>	IP filtering, stateful firewall, custom firewall rules (iptables), address and port translation; TLS 1.2 and above, FIPS 197, open VPN client and server; VPN tunnels; Authentication: RADIUS, TACACS+; certificates; MAC address filtering; VLAN support
<b>VPN</b>	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)
<b>ROUTING / FAILOVER</b>	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, <a href="#">Digi SureLink</a>
<b>OTHER PROTOCOLS</b>	DHCP; dynamic DNS client compatible with No-IP/DynDNS

## PRODUCT IMAGES\*

IX20 WITH CELLULAR, GPS AND WI-FI ANTENNAS



IX20 FRONT



IX20 WITH GPS AND CELLULAR ANTENNAS

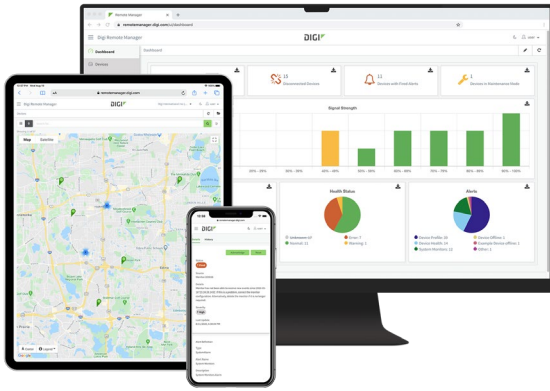


IX20 BACK



\*Digi CORE 1003-CM07-OUS and 1002-CMG4-GLB-G require two cellular antennas with option for a third GNSS/GPS antenna. Digi CORE 1002-CMG4-GLB, 1002-CM45-OEU and 1002-CMF4-OUS require two cellular antennas. Digi CORE 1002-CMM1-GLB requires only one cellular antenna. Wi-Fi antenna available for Wi-Fi enabled models.

# 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
- 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<sup>®</sup>, SOC 2<sup>®</sup> and SOC 3<sup>®</sup> standards
- Superior availability, operating to 99.9% or greater
- Open APIs available to support application development

## SECURITY

- Comprehensive security controls in place to protect your data
- Member of the Center for Internet Security<sup>®</sup> (CIS<sup>®</sup>)
- 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-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

\*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.

# 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.

PART NUMBERS	DIGI WAN BONDING
DIGI-SRV-WB-TIER1-1YR	Digi WAN Bonding subscription with 100 Mbps max throughput
DIGI-SRV-WB-TIER2-1YR	Digi WAN Bonding subscription with 200 Mbps max throughput
DIGI-SRV-WB-TIER3-1YR	Digi WAN Bonding subscription with 1 Gbps max throughput

\*\*Digi WAN Bonding is available as a subscription added to Digi Remote Manager Premier.

PART NUMBERS	DIGI IX20
IX20-W007	Digi IX20W — LTE-Advanced Cat 7 North America; Wi-Fi; GNSS: GPS, GLONASS, BeiDou, Galileo, QZSS; (2) Ethernet; DB-9 RS-232
IX20-0007	Digi IX20 — LTE-Advanced Cat 7 North America; GNSS: GPS, GLONASS, BeiDou, Galileo, QZSS; (2) Ethernet; DB-9 RS-232
IX20-W0G4	Digi IX20W — LTE Cat 4 Global; Wi-Fi; (2) Ethernet; DB-9 RS-232
IX20-00G4	Digi IX20 — LTE Cat 4 Global; (2) Ethernet; DB-9 RS-232
IX20-W0N4	Digi IX20W — LTE Cat 4 North America; Wi-Fi; (2) Ethernet; DB-9 RS-232
IX20-00N4	Digi IX20 — LTE Cat 4 North America; (2) Ethernet; DB-9 RS-232
IX20-W0G4-G	Digi IX20W — LTE Cat 4 EMEA; Wi-Fi; GNSS: GPS, GLONASS, BeiDou, Galileo, QZSS; (2) Ethernet; DB-9 RS-232
IX20-0045	Digi IX20 — LTE Cat 4 EMEA; 450 MHz support; (2) Ethernet; DB-9 RS-232
IX20-00M1	Digi IX20 — LTE Cat M1 Global; (2) Ethernet; DB-9 RS-232

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PART NUMBERS	DIGI CORE PLUG-IN LTE MODEMS*
1003-CM07-OUS	Digi CORE plug-in LTE modem — LTE-Advanced / HSPA+ Cat 7 (North America); GNSS: GPS, GLONASS, BeiDou, Galileo, QZSS; Certifications: visit <a href="http://digi.com/resources/certifications">digi.com/resources/certifications</a>
1002-CMG4-GLB	Digi CORE plug-in LTE modem — LTE / HSPA+ Cat 4 (Global); Certifications: visit <a href="http://digi.com/resources/certifications">digi.com/resources/certifications</a>
1002-CMG4-GLB-G	Digi CORE plug-in LTE modem — LTE Cat 4 (EMEA); GNSS: GPS, GLONASS, BeiDou, Galileo, QZSS; Certifications: visit <a href="http://digi.com/resources/certifications">digi.com/resources/certifications</a>
1002-CMF4-OUS	Digi CORE plug-in LTE modem — LTE / HSPA+ Cat 4 (North America); Certifications: visit <a href="http://digi.com/resources/certifications">digi.com/resources/certifications</a>
1002-CM45-OEU	Digi CORE plug-in LTE modem — LTE Cat 4 (EMEA); 450 MHz support; Certifications: visit <a href="http://digi.com/resources/certifications">digi.com/resources/certifications</a>
1003-CMM1-GLB	Digi CORE plug-in LTE modem — LTE / M1 / NB1 (North America); Certifications: visit <a href="http://digi.com/resources/certifications">digi.com/resources/certifications</a>

\*Digi CORE plug-in LTE modem is included with the corresponding IX20 model, with the ability to upgrade or replace the modem without replacing the router.

PART NUMBERS	AVAILABLE ACCESSORIES**
<b>REQUIRED ACCESSORIES (INDUSTRIAL OR COMMERCIAL POWER SUPPLY)</b>	
76002104	Industrial extended temperature power supply with plug tips for US, UK, EU, AU; -20 °C to 70 °C (-4 °F to 158 °F)
76002117	Commercial temperature power supply with plug tips for US, UK, EU, AU; 0 °C to 40 °C (32 °F to 104 °F)
<b>RECOMMENDED AND OPTIONAL ACCESSORIES</b>	
76002105	Wi-Fi antenna
76000926	Cellular antenna — 700 MHz to 2.7 GHz
76002114	Cellular antenna — 600 MHz to 6 GHz
76000960	Cellular antenna — 450 MHz
76000842	Antenna — active GPS, 1575 MHz
76002106	Ethernet cable — 2 m (6 ft)
76002093	DIN rail mounting bracket kit
76002095	DIN rail clip kit

\*\*Accessories not included with IX20 models unless otherwise noted.

**DIGI SERVICE AND SUPPORT** / You can purchase with confidence knowing that Digi is always available to serve you with expert technical support and our industry leading warranty. For detailed information visit [www.digi.com/support](http://www.digi.com/support).

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