![DIGI logo]

Manage this device with Digi Remote Manager

DIGI EX50

5G / 4G LTE cellular connectivity in a compact, all-in-one solution for primary or backup fixed wireless access (FWA) connectivity

Business has forever changed with millions of employees working remotely. The Digi EX50 router with 5G/4G dual connectivity provides businesses with a secure, resilient and optimized enterprise-grade network that changes the work from anywhere experience for good. Its small form factor allows device placement where the work is happening.

Reduce the complexity of managing multiple devices, and simplify installations and day-to-day management with **Digi Remote Manager®**. Establish valuable network resilience with 4G failover in cases of 5G disruption, and gain additional security and enterprise features. The Digi EX50 is an ideal choice for businesses as they adapt to the new normal.

The latest generation Wi-Fi 6 radios in the Digi EX50 router operate simultaneously on 2.4 and 5 GHz with higher speed,

capacity, quality of service and range than previous Wi-Fi 5 products to support many clients, bandwidth-intensive devices and new use cases such as AR/VR. Dual SIM slots provide carrier flexibility and wireless failover, and with 4G LTE and 3G fallback, you're covered in areas where 5G is not yet deployed.

Digi EX50 supports a wide range of indoor use-cases beyond A/C controlled spaces with an extended operating temperature range, such as smart factories, warehouses, construction sites or infrastructure sheds.

An available serial port with Cisco straight-through pinout can provide out-of-band (OOB) management for other on-site equipment. To simplify installation, Digi EX50 can be directly powered by an active PoE+ switch or a DC IN barrel connector as the primary or backup power source for redundancy.
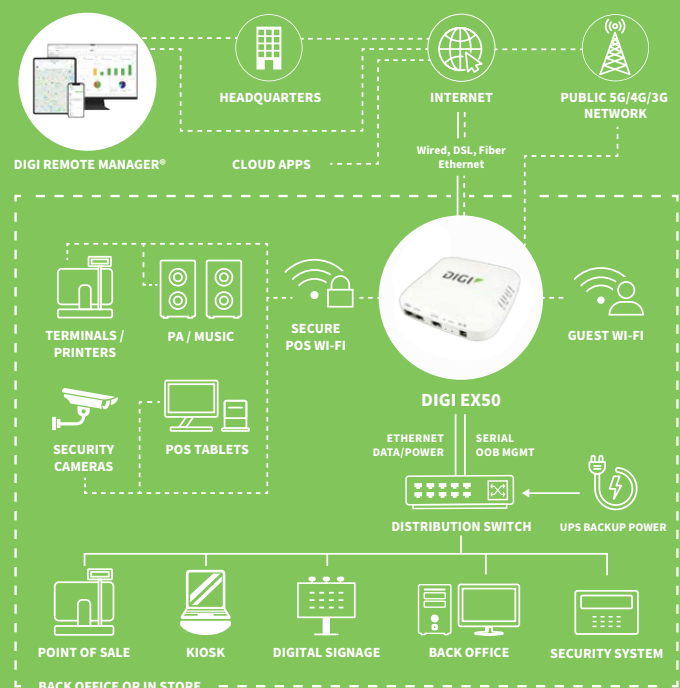
FEATURES AND BENEFITS

– Future-proof and ready for new use cases such as 5G network slicing, SD-WAN, 4K/8K cameras and AR/VR

– High-speed 5G NR and 4G LTE-Advanced Pro Cat 20 dual connectivity cellular radio

– Enterprise-grade Wi-Fi 6 and dual 2.5 Gigabit Ethernet

– Extended operating temperature range for wider use cases

– Standards-based Power over Ethernet simplifies installation

– Multiple mounting options and accessories

– Serial port for remote, out-of-band management

– Securely deploy, monitor and control devices with **Digi Remote Manager®**

APPLICATION EXAMPLE

RELATED PRODUCTS

| Digi EX12 | Digi EX15 | Digi IX10 | Digi IX20 | Digi Remote Manager |

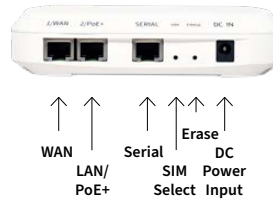| SPECIFICATIONS	DIGI EX50
CELLULAR CONNECTIVITY	
5G NR	Bands: n1, n2, n3, n5, n28, n41, n66, n71, n78, n79; C-Band
4G LTE-ADVANCED PRO	Bands: B1, B2, B3, B4, B5, B7, B8, B12, B13, B14, B17, B18, B19, B20, B25, B26, B28, B29, B30, B32, B34, B38, B39, B40, B41, B42, B46, B48, B66, B71; CBRS, LAA
3G HSPA+	Bands: B1, B2, B3, B4, B5, B6, B8, B9, B19
ANTENNA CONNECTORS	(4) 50 Ω SMA (center pin: female)
SIM SLOTS	(2) Mini-SIM (2FF); sof ware selectable, hardware switchable; SIM slot cover plate
SOFTWARE AND MANAGEMENT	
SOFTWARE	**Digi Accelerated Linux** (DAL OS); secure, reliable, intelligent, customizable
REMOTE MANAGEMENT	**Digi Remote Manager®**; security, management, updates, alerts, scheduling and intelligence
LOCAL MANAGEMENT	Web Interface (HTTPS); Command Line Interface (SSH, serial port)
PERFORMANCE	
ETHERNET THROUGHPUT	2.0 Gbps
CELLULAR THROUGHPUT	1.0 Gbps
IPSEC VPN THROUGHPUT	500 Mbps
VPN TUNNELS	10 tunnels
CLIENT COUNT	50 clients (typical)
PROCESSOR	
APPLICATION PROCESSOR	ARM® Cortex®-A53, 1.8 GHz, quad-core, 64-bit
MEMORY	512 MB RAM, 512 MB flash
ETHERNET	
PORTS	(2) RJ-45; 10/100/1000/2500 Mbps (auto-sensing)
WI-FI	
RADIOS	Wi-Fi 6 / 802.11ax, enterprise-grade, dual-band simultaneous, 2x2 MIMO; 2.4 GHz: 802.11b/g/n/ax; 2.4 GHz and 5 GHz: 802.11a/n/ac/ax
ANTENNAS	Integrated 2x2 MIMO, 2.4 GHz (8 dBi gain) and 5 GHz (5 dBi gain)
SECURITY	Open, Enhanced Open, WPA, WPA2, WPA3; Personal, Enterprise
MODES	(4) Wi-Fi access points; (2) Wi-Fi clients; (50) Wi-Fi users (typical)
SERIAL	
PORTS	(1) RS-232 (RJ-45); Cisco straight pinout; for out-of-band management of network appliances and servers
PHYSICAL	
DIMENSIONS (L x W x H)	158 mm x 158 mm x 35 mm (6.2 in x 6.2 in x 1.4 in)
WEIGHT	600 g (21 oz)
STATUS LEDs	(14) total for easy visual troubleshooting; Power, LAN, WAN, Wi-Fi 2.4/5, Online, Cellular Signal, Cellular Service, SIM 1/2
ENCLOSURE	Hybrid (die-cast aluminum + ABS plastic); Kensington Security Slot
POWER REQUIREMENTS	
DC BARREL INPUT	19 VDC / 2.5 A barrel connector, 2.5 mm pin, center-positive
POWER OVER ETHERNET	Standards-based, IEEE 802.3at, PoE+ (25.5 W)
POWER CONSUMPTION	8 W (idle), 15 W (typical), 25 W (maximum)
ENVIRONMENTAL	
OPERATING TEMPERATURE	! "# $%&' ! "# ( )$*)+, -. / 0/ , %1 1 02,)3-423$0/ 5%(026. 55-7849! "# $%&7! "# ( )$* : %(02% 02<$* 02+0$%2)+/ . 6$2)3-423$0/ 5%(026. 55-7
RELATIVE HUMIDITY	5% to 95% (non-condensing)
APPROVALS	
CELLULAR	Visit **www.digi.com/resources/certifications** for latest certifications
EMISSIONS / IMMUNITY	CE; RED; FCC Part 15 Subpart B; CAN ICES-003
SAFETY	IEC62368-1, CB, EN62311
WARRANTY	
PRODUCT WARRANTY	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.
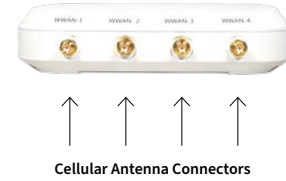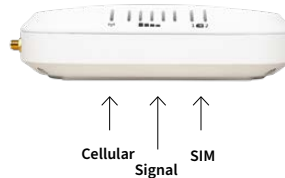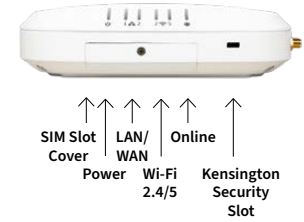
DIGI.

PRODUCT IMAGES

DIGI EX50 TOP

35 mm

158 mm

158 mm

DIGI EX50 FRONT

WAN

LAN/ PoE+

Serial

SIM Select

Erase

DC Power Input

DIGI EX50 BACK

Cellular Antenna Connectors

DIGI EX50 LEFT SIDE

Cellular

Signal

SIM

DIGI EX50 RIGHT SIDE

SIM Slot Cover

Power

LAN/ WAN

Wi-Fi 2.4/5

Online

Kensington Security Slot

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 EX50
EX50-WXS6-GLB	Digi EX50 - Global, 5G NR Sub-6 GHz with 4G/3G fallback, Wi-Fi 6 2x2 MIMO DBS, dual 2.5 GbE, RS-232, with accessories*

*Includes DC power supply, mounting hardware, Ethernet and serial cables.

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

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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**.

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Digi EX50 regulatory and safety statements

RF exposure statement

In order to comply with RF exposure limits established in the ANSI C95.1 standards, the distance between the antenna or antennas and the user should not be less than **20 cm**.

Federal Communication (FCC) Part 15 Class B

Radio Frequency Interference (RFI) (FCC 15.105)

The Digi EX50 has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet that is on a circuit different from the receiver.
- Consult the dealer or an experienced radio/TV technician for help.

Labeling Requirements (FCC 15.19)

EX50 complies with Part 15 of FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

If the FCC ID is not visible when installed inside another device, then the outside of the device into which the module is installed must also display a label referring to the enclosed module FCC ID.

Modifications (FCC 15.21)

Changes or modifications to this equipment not expressly approved by Digi may void the user's authority to operate this equipment.

European Community - CE Mark Declaration of Conformity (DoC)

Digi has issued Declarations of Conformity for the EX50 concerning emissions, EMC, and safety. For more information, see www.digi.com/resources/certifications.

Important note

Digi customers assume full responsibility for learning and meeting the required guidelines for each country in their distribution market. Refer to the radio regulatory agency in the desired countries of operation for more information.

Innovation, Science, and Economic Development Canada (ISED) statements

CAN ICES-003 (B)/NMB-003(B)

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications. Operation is subject to the following two conditions:

1. This device may not cause interference, and
2. This device must accept any interference, including interference that may cause undesired operation of the device.

Le present appareil numerique n'emet pas de bruits radioelectriques depassant les limites applicables aux appareils numeriques de la class B prescrites dans le Reglement sur le brouillage radioelectrique edicte par le ministere des Communications du Canada. L'exploitation est autorisée aux deux conditions suivantes:

1. l'appareil ne doit pas produire de brouillage;
2. l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, meme si le brouillage est susceptible d'en compromettre le fonctionnement.

This radio transmitter has been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

Le présent émetteur radio a été approuvé par Industrie Canada pour fonctionner avec les types d'antenne énumérés ci-dessous et ayant un gain admissible maximal. Les types d'antenne non inclus dans cette liste ci-dessous et dont le gain est supérieur au gain maximal indiqué, sont strictement interdits pour l'exploitation de l'émetteur.

| Antenna type | Frequency Band (MHz) | TX Paths | Max Antenna Gain (dBi) | CDD Directional Gain (dBi) | |
				For Power	For PSD
Omni Antenna	2412 ~ 2462	2	8.0	8.0	11.01
	5150 ~ 5850	2	5.0	5.0	8.01

Caution

1. The device for operation in the band 5150–5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems;
2. For devices with detachable antenna(s), the maximum antenna gain permitted for devices in the bands 5250-5350 MHz and 5470-5725 MHz shall be such that the equipment still complies with the e.i.r.p. limit;
3. For devices with detachable antenna(s), the maximum antenna gain permitted for devices in the band 5725-5850 MHz shall be such that the equipment still complies with the e.i.r.p. limits as appropriate.
4. The high-power radars are allocated as primary users (i.e. priority users) of the bands 5250-5350 MHz and 5650-5850 MHz and that these radars could cause interference and/or damage to LE-LAN devices.
5. DFS (Dynamic Frequency Selection) products that operate in the bands 5250- 5350 MHz, 5470-5600MHz, and 5650-5725MHz.

Mise en garde

1. Le dispositif destiné à être utilisé dans la bande de fréquences 5150–5250 MHz est destiné uniquement à une utilisation en intérieur afin de réduire le risque de brouillage préjudiciable causé par les systèmes mobiles à satellites dans le même canal;
2. Pour les dispositifs avec une ou plusieurs antennes détachables, le gain d'antenne maximal autorisé pour les dispositifs des bandes 5250-5350 MHz et 5470-5725 MHz doit être tel que l'équipement respecte encore les normes e.i.r.p. limite;
3. Pour les dispositifs avec une ou plusieurs antennes détachables, le gain d'antenne maximal autorisé pour les dispositifs de la bande 5725-5850 MHz doit être tel que l'équipement soit toujours conforme à la norme e.i.r.p. limites, le cas échéant.
4. Les radars à haute puissance sont attribués en tant qu'utilisateurs principaux (utilisateurs prioritaires) des bandes 5250-5350 MHz et 5650-5850 MHz et que ces radars pourraient causer des interférences et / ou des dommages aux dispositifs LE-LAN.
5. Produits DFS (Dynamic Frequency Selection) fonctionnant dans les bandes de fréquences 5250-533 MHz, 5470-5600 MHz et 5650-5725 MHz.

IMPORTANT NOTE

Radiation Exposure Statement:

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.

Déclarationd'exposition aux radiations:

Cetéquipementestconforme aux limitesd'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cetéquipementdoitêtreinstallé et utilisé avec un minimum de 20cm de distance entre la source de rayonnement et votre corps.

Innovation, Science, and Economic Development Canada (IC) certifications updated on 16 Nov 2021 10:15 PM

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