

The Leading Enterprise Internet of Things Solution

IoT+ 4G LTE Cellular Gateway

General Description

Monnit's IoT+ LTE Cellular Gateway allows you to control settings for your sensors without additional IT infrastructure. All you need is a power source to monitor your environment and equipment using Monnit's industry-leading devices. The LTE Cellular Gateway will communicate with sensors and IoT Sensor ID® to deliver data alerting you to conditions in a surrounding area.

LTE Cellular Gateways operate using the latest 4G LTE CAT-M1/NB1 cellular technology. This advanced wireless IoT (Internet of Things) gateway will accommodate multiple vertical IoT application segments and wireless sensor management solutions. Your gateway is equipped with the 24-hour backup battery. Your IoT Sensor ID Wireless IoT+ Sensors will continue to communicate with IoT Sensor ID via cellular transmission in the event of a power outage. The LTE Cellular Gateway is ideal for applications without an existing wired internet connection or where existing infrastructure is dedicated to other resources.

Example Applications

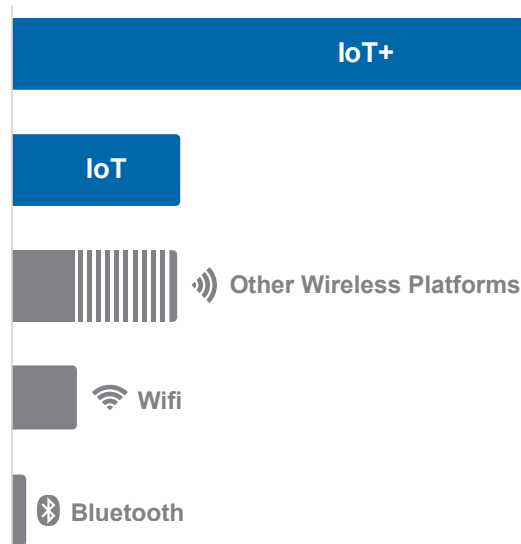
- Remote Location Monitoring
- Shipping and Transportation
- Agricultural Monitoring
- Vacant Property Management
- Vacation Home Property Management
- Construction Site Monitoring
- Data Center Monitoring

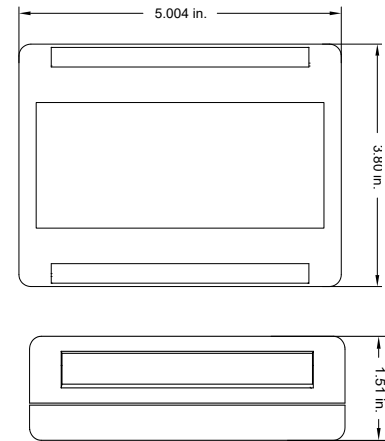
IoT+ LTE Cellular Gateway Features

- Wireless range of 1,200+ feet through 12+ walls *
- Frequency Hopping Spread Spectrum (FHSS)
- Improved interference immunity
- Encrypt-RF® Security (Diffie-Hellman Key Exchange + AES-128 CBC for sensor data messages)
- Up to 50,000 sensor message memory
- Over the air updates (future proof)
- True plug & play, no hassles for internet configuration set-up
- No PC required for operation
- Low-cost cellular service packages
- Local status LEDs with transmission and online status indicators
- AC power supply
- 24 hour battery backup in event of power outage

* Actual range may vary depending on environment.

Wireless Range Comparison





IoT+ 4G LTE Cellular Gateway Specifications

Models

Cellular	MNG2-4-LTE-CCE
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Cellular

Cellular Technology	LTE CAT-M1 LTE-only module for global use (AT&T, T-Mobile USA, Telstra, Verizon) Cat M1/NB1 deployed bands 2, 3, 4, 5, 8, 12, 13, 20, 28
SIM Card Compatibility	Micro-SIM (3FF) 15 mm x 12 mm x 0.76 mm

Power

Input Power	5.0 VDC @ 1 A
Battery Backup	Battery Type: Rechargeable Lithium Polymer
	Battery Duration: Up to 24 hours
	Battery Cycle Life: 500 times
	Battery Safety: IEC62133

Mechanical

LEDs	Connectivity, Server, Network Status
Device Memory	Up to 50,000 sensor messages (Sensor messages will be stored in the event of Internet outage and transferred when connection is restored)

Enclosure

Dimensions	5.004 x 3.8 x 1.51 in.
Weight	7 ounces

Environmental

Operating Temperature	+5 to +45°C (41 to 113°F)
Storage Temperature	-20 to +60°C (-4 to 140°F)

IoT+ Wireless

Transmit Power (EIRP)	50 mW (900 MHz), 25 mW (868 MHz), 10 mW (433 MHz)
Antenna Type	Connector: SMA Gain: 4.0 dBi
Wireless Range	1,200+ ft. non-line-of-sight *
Security	Encrypt-RF® (256-bit key exchange and AES-128 CBC)

Certifications



Safety: IEC 60950-1 and IEC 62368-1; EMC: IEC 55024, IEC 55032, IEC 301489-1, -3, -A, -52, FCC 47 CFR Part 15, subpart B and ICES - 001 Issue 6; RF: 900 MHz product includes model FCC ID: ZTL-G2SC1 / IC: 9794A-G2SC1 and FCCID: XPY2AGQN4NNN / IC: 8595A-2AGQN4NNN; 868 MHz product includes Module G2SC1 (IEC 300 220-1, -2); 433 MHz product includes Module G2SC2 (IEC 300 220-1,-2)

* Actual range may vary depending on environment.

Commercial Grade Cellular Gateways:

IoT Sensor ID commercial grade cellular gateways are designed for applications in ordinary environments (normal room temperature, humidity and atmospheric pressure). Do not use these gateways under the following conditions as these factors can deteriorate the product characteristics and cause failures and burn-out.

- Corrosive gas or deoxidizing gas – chlorine gas, hydrogen sulfide gas, ammonia gas, sulfuric acid gas, nitric oxides gas, etc.).
- Volatile or flammable gas.
- Dusty conditions.
- Under low or high pressure.
- Wet or excessively humid locations.
- Places with salt water, oils chemical liquids or organic solvents.
- Where there are excessively strong vibrations.
- Other places where similar hazardous conditions exist.