Remote Monitoring for Business

CELLULAR

ALTA 4G LTE INDUSTRIAL CELLULAR GATEWAY

General Description

The ALTA Industrial Cellular Gateway (CGW) is an advanced all wireless M2M gateway that enables fast time-to-market solutions for many M2M applications. The Industrial CGW allows your Monnit Wireless Sensors to communicate with the iMonnit™ Online Wireless Sensor Monitoring and Notification System via cellular transmission. This is the perfect solution for remote industrial locations without an existing internet connection, and environmental conditions may be wet or dusty.

Monnit's industrial cellular gateways are specifically designed to respond to the increasing market need worldwide for global technology that accommodates multiple vertical M2M application segments and solutions for remote wireless sensor management. Monnit cellular gateways are available in CDMA, 4G, 3G, or 2G cellular technologies to support various cellular carriers and global locations.
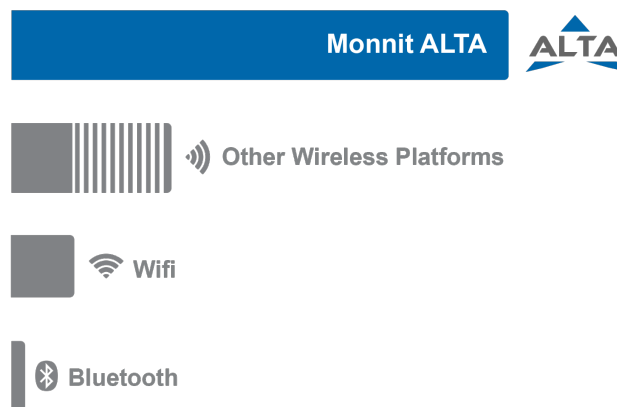
Example Applications

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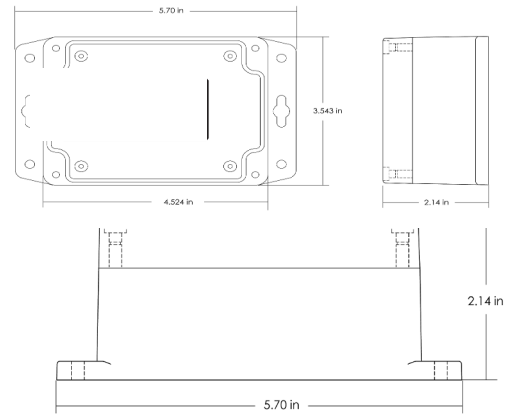- Construction Site Monitoring
- Data Center Monitoring

ALTA 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

Monnit ALTA

Other Wireless Platforms

Wifi

Bluetooth

ALTA 4G LTE Industrial Cellular Gateway Specifications

Models

Cellular	MNG2-9-LTE-IN-ND

Cellular

Cellular Technology	LTE CAT-M1 LTE-only module for global use (AT&T, Verizon, Telenor, Hologram, US Cellular, and Sasktel) 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

Power Interrupt	Magnetic Reed Switch (see page 3 for details)
Input Power	90-240 VAC @ 0.2A max (15W), 5.9VDC @ 2500mA max
Battery Backup	Battery Type: Rechargeable Lithium Polymer
	Battery Duration: Up to 24 hours
	Battery Cycle Life: 500 times
	Battery Safety: IEC62133

Mechanical

LEDs	Sensor Data, Server Status, Cellular Status
Device Memory	Stored messages persist if gateway is power cycled (Non-Volatile) Stores up to 50,000 sensor messages (Sensor messages will be stored in the event of Internet outage and transferred when connection is restored,)

Enclosure

	Polycarbonate, NEMA 1, 2, 4, 4x, 12 and 13 rated, sealed and weather proof
Weight	16.9 ounces

Environmental

Operating Temperature	-20 to 55 °C (-4 to 131 °F)
Charging Temperature	0 to 45 °C (32 to 113 °F)
Storage Temperature	-20 to +60°C (-4 to 140°F)

ALTA 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.

Power Interrupt Switch

The ALTA 4G LTE Industrial Gateway comes with a power interrupt operated by a magnetic reed switch. The power interrupt disconnects both the main power supply and battery backup. Use this feature if you need to force a reset of the gateway. When contact is made, gateway status lights will turn off, indicating successful power interruption.

> **Note: Power is only interrupted while the magnet is on the touchpoint.**
> **Once the magnet is removed, power is returned.**

Industrial Grade Gateways | Type 1, 2, 4, 4X, 12 and 13 NEMA Rated Enclosure

Industrial gateways are enclosed in reliable, weatherproof NEMA rated enclosures. Our NEMA-rated enclosures are constructed for both indoor or outdoor use and protect the gateway circuitry against the ingress of solid foreign objects like dust as well as the damaging effects of water (rain, sleet, snow, splashing water, and hose-directed water).

- Safe from falling dirt
- Protects against wind-blown dust
- Protects against rain, sleet, snow, splashing water, and hose-directed water
- Increased level of corrosion resistance
- Will remain undamaged by ice formation on the enclosure

WARNING: Opening the waterproof housing to access the SIM socket or internal utility button will require care to correctly seal the housing. Alternate tightening all screws evenly until achieving a torque of 0.4 N*M or 3.5 in*lbs per screw.   Failing to do this may cause the lid to incorrectly seal and product could be damaged by environmental factors.

Cellular Coverage Maps:

AT&T   Verizon   Telenor   Hologram   US Cellular   Sasktel

MONNIT®

Monnit Corporation
3400 South West Temple ● Salt Lake City, UT 84115 ● 801-561-5555
www.monnit.com

Change Log

Revision	Author	Date (yyyy/mm/dd)	Change
1	Justin Taylor	2021/01/04	Original release.
2	Justin Taylor	2021/04/20	Added change log. Updated enclosure information and weight in the spec table. Replaced commercial gateway information on last page with industrial gateway information.
3	K Detro	2021/08/12	Added information and grapics about the power interrupt.