

# INCUE

## ICRA AUTOMATION™ SOLUTIONS



### INCUE LAN Gateway

#### General Description

The INCUE LAN Gateway features a powerful wireless transceiver with up to 1 Watt of transmission power and an amplified receiver. The INCUE LAN Gateway can send and receive data communications with INCUE Wireless Sensors 1,000+ feet through 10+ walls in commercial building environments.

The gateway allows INCUE Sensors to communicate with the INCUE Platform without needing a PC. Simply provide power and plug the gateway into an open Ethernet/LAN port with an Internet connection. It will automatically connect with our online servers, providing the perfect solution for Internet-enabled commercial locations.

In most healthcare facilities, IT has restricted access to the LAN. If approved LAN access is challenging, we suggest using the INCUE Cellular Gateway instead. The INCUE Cellular Gateway is ideal for applications without a wired Internet connection or with restricted network access by IT. However, it also comes with an RJ-45 Ethernet jack for local device configuration, diagnostics, and backup Internet connection if allowed by IT.

#### Example Applications

- Facility Humidity/Temperature Monitoring
- Infection Control Risk Assessment (ICRA)
- Healthcare Construction & Remediation
- Critical Area Monitoring
- Catheterization Labs
- Endoscopy Unit
- Operating Rooms
- Isolation Rooms
- Sterile Processing Department
- Supply Rooms
- Lab Monitoring
- Other Critical Area Monitoring

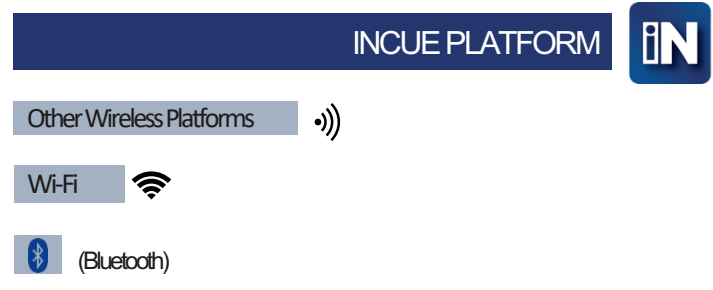
#### INCUE Ethernet Gateway Features

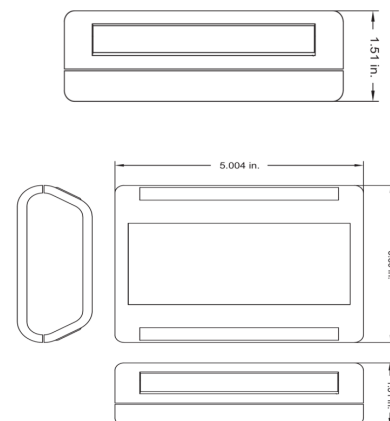
- Wireless range of 1,000+ feet through 10+ walls<sup>1</sup>
- Frequency-Hopping Spread Spectrum (FHSS)
- Best-in-class interference immunity
- Encrypt-RF® Security (Diffie-Hellman Key Exchange + AES-128 CBC for sensor data messages)
- 30,000 sensor message memory<sup>2</sup>
- Over-the-air (OTA) updates (future-proof)
- True plug and play, no hassles for Internet configuration setup
- No PC required for operation
- Local-status LEDs with transmission and online status indicators
- AC power supply

<sup>1</sup> Actual range may vary depending on the environment

<sup>2</sup> Total messages in memory varies with sensor type (30K total messages for temperature)

#### Wireless Range Comparison





## INCUE LAN Gateway Specifications

### Models

Ethernet	MNG3-9-EGW-CCE
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### Ethernet

Hardware	10/100 Ethernet Controller
IEEE Standard Compliance	802.3-2002
Operation	Full- and Half-Duplex
Cross-Over Correction	Automatic MDI/MDI-X
Protocols Supported	DHCP, DNS, NTP, UDP, TCP, SNMP, Modbus TCP
Cable Connector	RJ45
Device Memory	Typically, 30,000 sensor messages; varies based on sensor type. (Sensor messages will be stored in the event of an Internet outage and transferred when the connection is restored.)

### Power

Input Power	5.0 VDC@ 1A
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### Mechanical

LEDs	Connectivity, Server, Network Status
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### Enclosure

ABS

Dimensions	5.004 x 3.8 x 1.51 in.
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Weight	7 ounces
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### Environmental

Operating Temperature	-20 to +60° C (-4 to 140° F)
Storage Temperature	-40 to +85° C (-40 to 185° F)

### Wireless

Transmit Power	+30dBm or 1W
Antenna Types	Connector: RP-SMA Gain: 3.0 dBi (Antenna EIRP: 32.6dBm or 1.8W rating)
Wireless Range	1,000+ ft. non-line-of-sight <sup>1</sup>
Security	Encrypt-RF® (256-bit key exchange and AES-128 CTR)

### Certifications



Industry  
Canada

900 MHz product; FCC ID: ZTL-G2XL 1 and IC: 9794A-G2XL 1.

<sup>1</sup> Actual range may vary depending on environment.

## Commercial-Grade Gateways

INCUE LAN Gateways are designed for applications in ordinary environments (normal room temperature, humidity, and atmospheric pressure). Do not use the gateways under the following conditions as these factors can deteriorate the product characteristics and cause failures and burnout:

- Corrosive or deoxidizing gas - chlorine gas, hydrogen sulfide gas, ammonia gas, sulfuric acid gas, nitric oxide 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

Use these products within the specified temperature range. Higher temperatures may cause deterioration of the characteristics or the material quality.

## Power Supply Advisory

When using the gateway in a remote area or powering the gateway with an inverter, there is a possibility of unbalanced or noisy power (not true sinusoidal AC power). The INCUE LAN Gateway may experience random reboots and Ethernet link instability in these situations. If so, INCUE recommends using the AC/DC power supply for the device. Additionally, power-line filters or higher-end power inverters may be required for stable operation.