

OPTION

# CloudGate secure



Industrial grade, highly customizable  
cellular LTE connectivity LoRaWAN Gateway



Industry proven hardware



+7 years LoRaWAN expertise



External antenna connector  
for miles of superior  
LoRaWAN coverage



Ruggedized low power design



Ethernet & cellular LTE  
connectivity



Secure Element inside

# OPTION

Highly customizable & flexible to integrate and deploy

## Benefits

- Worldwide LTE Cat 4
- 20 LTE bands (EMEA, Americas, Asia) including TDD bands (China)
- LoRa multiregion 868 MHz & 9xx MHz
- Industrial ruggedized design
- External antenna connector
- Superior wireless coverage
- Highly secure with ECC608 secure element inside

## Why using a secure element?

The on-board ECC608 Secure Element integrated within the CloudGate Secure IoT cellular Gateway provides a critical layer of security when establishing a connection with any Cloud. This tamper-resistant hardware security module offers enhanced protection for sensitive cryptographic operations and key management. By securely storing and managing encryption keys, certificates, and authentication credentials, the ECC608 Secure Element ensures that communication between the CloudGate Secure IoT Gateway and the Cloud Server remains highly secure, guarding against potential threats such as unauthorized access, data breaches, and malicious tampering. This added security layer instills trust and confidence in data transmission, making the CloudGate Secure a reliable choice for all your industrial IoT applications.

## Typical Use Case of CloudGate Secure

In food retail, the CloudGate Secure IoT Gateway, with the ECC608 Secure Element, acts as a highly secure hub for LoRaWAN-enabled sensors, like temperature and humidity sensors. The secure element ensures optimal encrypted communication between these sensors and the customer's MQTT broker, guaranteeing compliance with food safety standards and enabling real-time monitoring of food and climate for optimal food storage conditions, all streamlined through efficient LoRaWAN technology. This secure and efficient setup enhances food quality and safety in storage facilities.

LORAWAN FUNCTIONALITY	
Feature	Description
Radio protocol	• LoRaWAN
Baseband processor	• Semtech SX 1302 second-generation LoRa Core™ Digital Baseband Chip
Transceiver	• Dual SX1250 Tx/Rx front-end, providing a channel range up to 2MHz and up to -141 dBm sensitivity, output power up to +27dBm
LoRa Bandwidth	• 125 kHz LoRa reception with 8 x 8 channels LoRa® packet detectors, 8 x SF5-SF12 LoRa® demodulators and 8 x SF5-SF10 LoRa® demodulators
Regional variants	• For use in 868MHz or 902-928MHz mode.
Frequency bands	• EU868, US915
Security	• 128-bit AES encryption (send/receive)
Antenna connector	• SMA RP (female)

Technical Specifications		
WWAN Modem LTE	Supported frequency bands	• LTE FDD: B1, B2, B3, B4, B5, B7, B8, B12, B13, B18, B19, B20, B26, B28 • TDD: 3B/39/40/41
	Max. connectivity speeds	• LTE DL 150 Mbps, UL50 Mbps
WWAN Antenna	Antenna connector	• 1 x SMA: WWAN Main • 1 x SMA: WWAN Mimo/Div/GPS
SIM	USIM/SIM connection – Class B and Class C	Micro-SIM (3FF)
CPU		i.MX280 (ARM926EJ-S @ 450 MHz) Memory available for customer apps 512 MB Flash (20 MB for data, 30 MB for application, 372 MB extra data partition)
Ethernet (IEEE 802.3)	10/100Mb/s RJ45 Connector	2 (LAN/WAN or LAN/LAN)
Realtime clock	Up to 7 days	
Power input	9-33V DC	• DC input voltage: 9-33 V DC • Connector: Micro-Fit 3.0TM, Dual row, 4-position; DC, GND sensing input
Power consumption	Max. 4W	
Aluminium Case	Dimensions	102 x 97 x 26 mm 4 x 3.8 x 1 in
	Weight	261 g / 9.21 oz
	Mounting, Bulkhead, 6xM4 holes, DINrail with adapter	✓
	System status LED	✓
Environ-mentals	Operating temperature	-30°C to +70°C / -22°F to 158°F
	Storage temperature	-40°C to +85°C / -40°F to 185°F
	Humidity	5% - 95%
Certifications		CE, FCC, PTCRB, ISED, AT&T, VZW, US Cellular, DeWi
Std. compliance	ROHS, Reach, WEEE	✓
CloudGate Universe	Device can be configured OTA using CloudGate Universe	✓
Secure Element	Microship ATECC608 module	✓



Product	PN
CloudGate LTE WW Secure	CG0124-12248