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CG10LE

Product Datasheet



Version V1.01

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About this document

This document focuses on LoRa Outdoor GatewayCG10LE of the specification parameters.

Product selection

Model	Chip	Power	Frequency band	Applicable area
CG10LE REV.A(CN470LS27N-1E1G1K1W)	SX1301	+27dBm	CN490	Chinese Mainland
CG10LE REV.A(CN470LD27N-1E1G1K1W)	SX1301	+27dBm	CN490	Chinese Mainland
CG10LE REV.A(EU868HS27N-1E1G1K1W)	SX1301	+27dBm	EU868	Regions of Europe
CG10LE REV.A(US915HD27N-1E1G1K1W)	SX1301	+27dBm	US915	Regions of the United

				States
CG10LE REV.A(AU915HD27N-1E1G1K1W)	SX1301	+27dBm	AU915	Regions of Australia
CG10LE REV.A(AS923HS27N-1E1G1K1W)	SX1301	+27dBm	AS923	Asia Pacific
CG10LE REV.A(UZ925HS27N-1E1G1K1W)	SX1301	+27dBm	UZ925	Hassax
CG10LE REV.B(EU433LS30N-1E1G1K1W)	SX1302	+30dBm	EU433	Regions of Europe
CG10LE REV.B(CN490LD30N-1E1G1K1W)	SX1302	+30dBm	CN490	Chinese Mainland
CG10LE REV.B(EU868HS30N-1E1G1K1W)	SX1302	+30dBm	EU868	Regions of Europe
CG10LE REV.B(US915HD30N-1E1G1K1W)	SX1302	+30dBm	US915	Regions of the United States
CG10LE REV.B(AU915HD30N-1E1G1K1W)	SX1302	+30dBm	AU915	Regions of Australia
CG10LE REV.B(AS923HS30N-1E1G1K1W)	SX1302	+30dBm	AS923	Asia Pacific

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1. Version information

Date	Version	Updated content
2023.12.07	V1.00	Create this document
2023.12.12	V1.01	Additional Product Selection

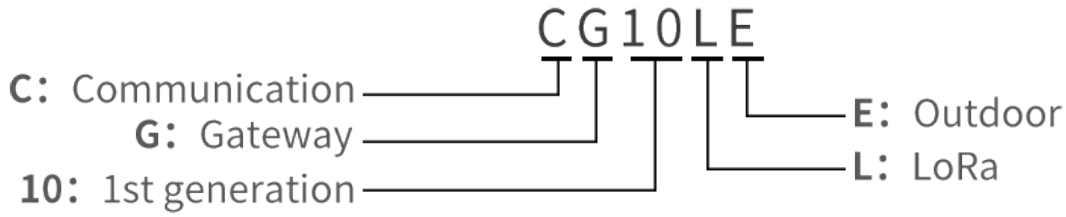
2. Product Overview

CG10LE LoRa Outdoor Gateway (cellular base station) complies with the LoRaWAN international communication standard, supports uplink 8 channel concurrency, and 433 / 470 / 868 / 915 / 923 multi-band options, allowing access to various LoRaWAN application nodes.

The gateway supports wired and wireless cloud core network docking, wireless can support full Netcom 4G / 3G / 2G, and wired supports Ethernet docking. The default configuration of the GPS module, can provide high-precision clock synchronization, can also provide location and altitude information, easy for users to combine the LBS application network optimization. Support to detect node signal strength, provide gateway temperature, power supply voltage and other monitoring data.

It can be configured and managed through the Wi-Fi hotspot site login WEB interface, supporting mains, solar and PoE power supply, holding pole, wall and other deployment modes, in line with IP67 protection level, meet the wide temperature of -40 ~ + 85 ° C, and resist outdoor harsh environment.

2.1. Model Dxplaination



2.2. Basic functions

- LoRaWAN 1.0.2 protocol stack for cellular communication
- Half duplex communication, 1 physical Tx, 8 physical Rx, MultiSF technology, 48 logical concurrent receive channels
- 433 / 470 / 868 / 915 / 923 Multi-band optional
- Support Class A / B / C three working modes
- Ethernet / 4G data back
- GPS positioning and timing
- Wi-Fi hotspot connection, WEB configuration interaction
- Built-in Mini UPS ensures reliable operation of the gateway and improves disaster recovery capability

- Built-in temperature sensor to monitor the working environment temperature of the gateway
- Built-in voltage detection to monitor power supply such as solar energy
- Can support DC11 ~ 36V power supply and PoE power supply

2.3. Wireless parameters

Category	Project	least value	Typical value	Maximum value
Spread spectrum factor	LoRa	SF7	—	SF12
Support frequency band	433/490/868/915/923	—	—	—
Transmit power	—	—	—	+26dBm
Receiving sensitivity	Spread Spectrum Factor 10 Bandwidth 125 KHz	—	-135dBm	—
signal path	8 channel up 1 channel down	—	—	—

2.4. Electrical characteristics

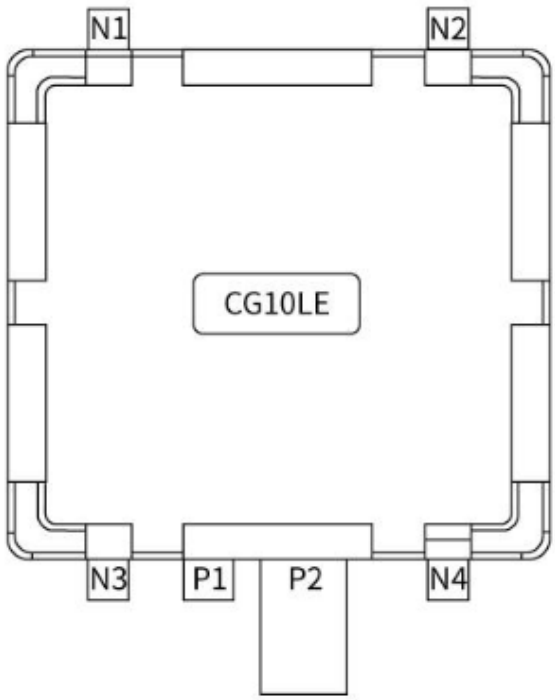
Category	Project	least value	Typical value	Maximum value
Operating voltage	Power Supply Interface Supply	11Vdc	12Vdc	36Vdc
Operating voltage	POE power supply	44Vdc	48Vdc	57Vdc
Static power consumption	Average power consumption during	—	3.8W	5W

	normal operation			

2.5. Software functions

Parameter	Introductions
Configuration interface	Internet / Wi-Fi
Configuration interface	WEB (Band templates supported)
LoRa Communications	Drive SX1301,8 channels up, 1 channel down, support Class A / B / C
Condition monitoring	Supply voltage, built-in UPS voltage and charging current, 4G signal, CPU and motherboard temperature, CPU and memory usage

3. Hardware interface



Name	Function	Remarks
N1	GPS antenna interface	N-Female

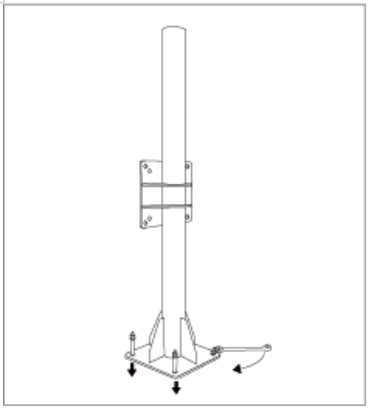
N2	LoRa Antenna Interface	N-Female
N3	2.4G Antenna Interface	N-Female
N4	4G Antenna Interface	N-Female
P1	DC power supply, debugging line	Details The following table describes
P2	PoE interface	—

Name	Function	Remarks
black	GND	DC Supply Negative
red	VCC	DC Supply Positive
yellow	RXD	RS-232 Control Console
white	TXD	RS-232 Control Console
green	DEF	System Reset / Factory Reset

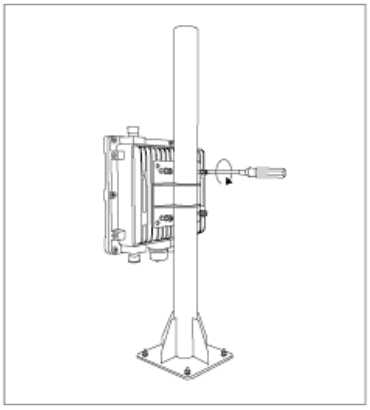
4. Mechanical dimensions

Unit: mm, tolerance: ± 0.2 mm.

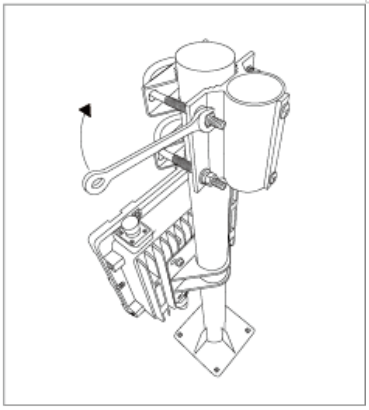
5. Installation instructions



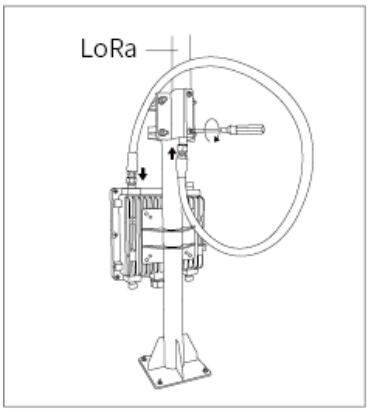
❶ Mounting brackets



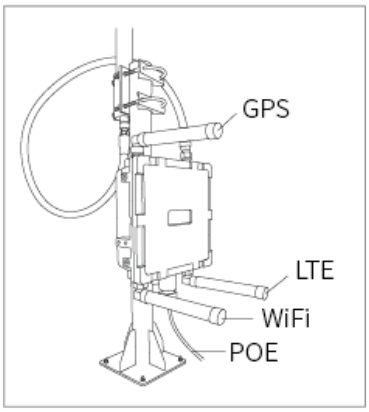
❷ Fixed gateway



❸ Install the hoop



❹ Install LoRa Antenna



❺ Install Antenna (GPS/LTE/WiFi) and POE