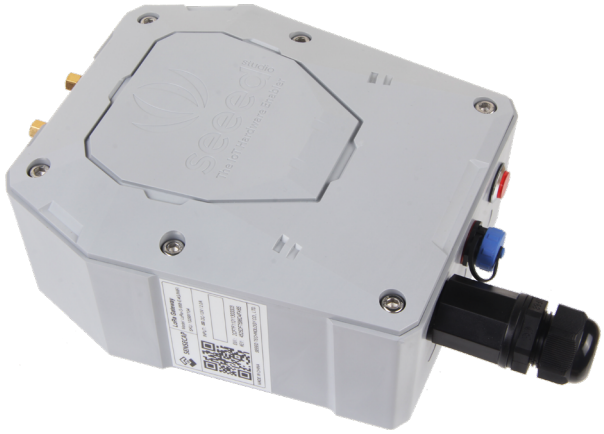
SENSECAP

An Industrial Wireless Sensor Network Solution

LoRaWAN Gateway



Features

- Support LoRaWAN™(*) protocol
- High-performance Cortex A8 1GHz processor
- Support multiple ISM bands: CN470, EU868, US915
- Support multiple methods to access the network
- Ultra-wide-distance transmission
- Support 8 RX, 1 TX transceiver
- IP66 enclosure, suitable for outdoor applications
- Rapid installation and deployment
- Easy-to-use cloud services

Applications

- Smart Agriculture
- Smart Building and Industrial Control
- Environmental Monitoring
- Other Wireless Sensing Applications

Introduction

SenseCAP LoRa Gateway is based on LoRaWAN™ protocol, applicable for low-power, long-distance environmental data collection and monitoring in scenarios such as smart agriculture and smart city etc. As the central device of the LoRa network, the gateway is used for collecting data from different Sensor Probes and transmit the data to the cloud platform via 4G or Ethernet cable. Equipped with a high-performance processor and telecom-operator-level LoRa chip, this gateway ensures stable and high performance in large-scale network. The gateway is designed with IP66-protection-level enclosure, making it suitable for industrial applications in outdoor severe environments.

Key Advantages

Cortex A8 processor, Linux system, stable and reliable

Support LoRaWAN™ protocol Class A

Provides a variety of cloud services and data API interfaces

Ultra-wide-distance transmission: 10km in line of sight scene, 2 km in urban scene

Support multiple ISM bands: CN470, EU868, US915

4G and Ethernet connectivity, suitable for multiple scenes.

Industrial grade protection: IP66 enclosure, suitable for outdoor applications

Operating temperature -40℃ to +70℃

LoRaWAN Gateway

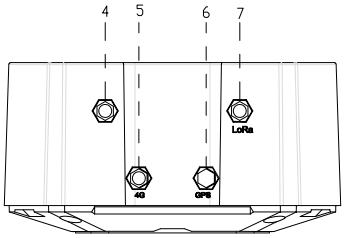
Specifications

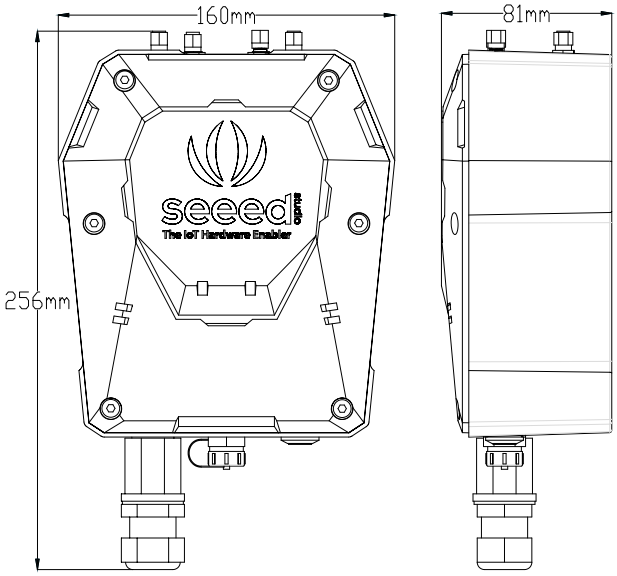
Product Model	
Model	Region
LoRa-G-470-E/4G	Asia(China)
LoRa-G-868-E/4G	European, Africa, Asia(India etc.)
LoRa-G-915-E/4G	North America, South America, Oceania,Asia(Japan, Korea, Thailand, etc.)

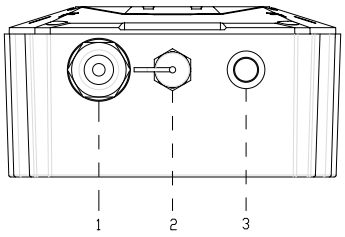
LoRa Parameters			
Channel Plan	470~510MHz	863~870MHz	902~928MHz
Power Output	25dBm	27dBm	26dBm
Sensitivity	140.5dBm (SF12BW125)	139.5dBm (SF12BW125)	141.5dBm (SF12BW125)

General Parameters	
CPU	TI AM3358 Cortex-A8 1GHz
System	Linux Debian
RAM	DDR3 512MB
Memory	4GB eMMC
Ethernet	100Mbps FE (RJ-45)
4G Frequency	B3/B7/B20/GSM900/GSM1800 (Europe/APAC) B2/B4/B12(AT&T, T-Mobile) B4/B13(Verizon) LTE Speed Category: Cat.1 LTE Speed: down link 10.3Mb/s, up link 5.2Mb/s
Antenna	LoRa Antenna *1, 4G Antenna *1
LED Indicator	Indicating network condition (online/ offline)
Grounding	Reserved 1 screw hole for GND
Power Consumption	3.6W
Power Supply	DC 12V/1.5A
IP Rating	IP66
UV Resistance	anti-aging (from rain/sun exposure): UL746C F1
Enclosure Material	PC+PBT
Operating Temperature	-40 ℃ to +70 ℃
Operating Humidity	0 to 100 %RH (not solid condition)
Installation Method	Wall or pole mounting
Device Weight	840g

Device Dimensions







1. Ethernet Port
2. Power Connector
3. LED
4. Reserved
5. 4G Antenna Connector
6. Reserved
7. LoRa Antenna Connector