# LEO-S592-AQ

## LoRaWAN 7 in 1 AQI Sensor



#### **Features**

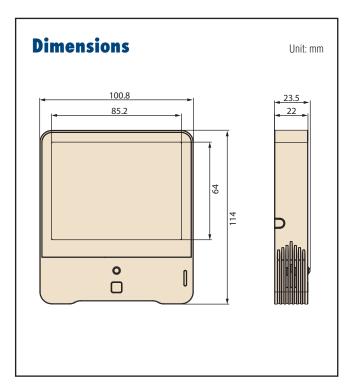
- Integrated with multiple sensors: humidity, temperature, CO2, Brightness, PM2.5, PM10, HCH0.
- Multiple display modes and clear emoticon to easily understand the comfort levels via screen
- Equipped with LED indicator and buzzer to indicate device status and threshold alarms
- Compliant with standard LoRaWAN® gateways and network servers

#### **Specifications**

Display		4.2" B/W epaper
Frequency		US915/AU915/KR920/AS923/RU864/ IN865/EU868/CN470
NFC		Y (Configuration)
LED		R/0/G
Button		1 x Power Button 1 x Reset Button
Power		5V/1A by Type-C Port
Working Temperature		-20°C ~ 60°C ePaper (0°C ~ 40°C)
Working Humidity		10% ~ 90% (non-condensing) at 25°C (77°F)
Wireless Range		50 meters+ (Line of Sight)**
dimension		100.8 x 114 x 22 mm (3.97 x 4.49 x 0.87 in)
Weight (KG)		0.68g
IP		30
Certification		FCC, CE, RCM
Temperature	Range Accuracy Resolution	-40°C ~ 85°C ±1°C 0.1°C
Humidity	Range Accuracy Resolution	0~100% RH ±3% 0.50%
C02	Range Accuracy Resolution	400~2000PPM 50PPM± 5% 1PPM
Brightness	Range	60000 lux
PM2.5/PM10	Range	0 ~ 1000 μg/m³
	Accuracy	0~100 (±10 μg/m³) 100~1000 (±10 %)
	Resolution	1 μg/m3
HCHO*	Range	0 ~ 6 mg/m <sup>3</sup>
	Accuracy	±10 %
	Resolution	0.01 mg/m³



<sup>\*</sup> HCHO sensor working life is 5 years, support replacement.
\*\* Test under laboratory conditions and for guideline purposes only



## **Ordering Information**

Part Number	Description
LEO-S592-AQG0	LEO-S LoRaWAN 7 in 1 AQI sensor 915
LEO-S592-AQC0	LEO-S LoRaWAN 7 in 1 AQI sensor 470
LEO-S592-AQE0	LEO-S LoRaWAN 7 in 1 AQI sensor 868

### **Packing List**

- 1 x Type -C Cable
- 1 x USB Adapter
- 1 x Mounting Bracket
- 1 x 3M Double Side Tape
- 3 x Wall Mounting screws

# USM-S67

#### **LoRaWAN Gateway**



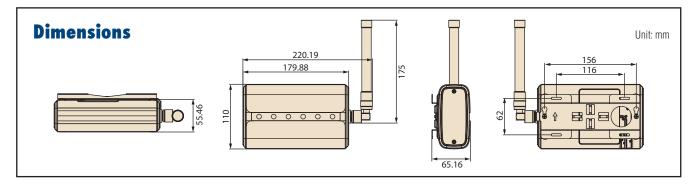
#### **Features**

- Quad-core industrial processor with big memory
- Equip with SX1302 chip, handling a higher amount of traffic with lower consumption
- 8 half/full-duplex channels
- IP65 enclosure and industrial design for parts of outdoor environment applications like eaves
- Desktop, wall or pole mounting
- Multi backhaul backups with Ethernet and Wi-Fi
- Easy and centralized management of remote devices
- Enable security communication with multiple VPNs like IPsec/OpenVPN/ L2TP/PPTP/DMVPN
- Built-in network server and MQTT/HTTP/HTTPS API for easily integration
- Embedded Python SDK for users secondary development
- Fast and user-friendly programming by Node-RED development tool

#### **Specifications**

General	CPU	Quad-core 1.5 GHz, 64-bit ARM Cortex-A53
	Memory	512 MB DDR4
	Flash	8 GB eMMC
	LED Indicators	1 x POWER, 1 x STATUS, 1 x LoRa, 1 x Wi-Fi, 1 x Ethernet
	Frequecny	US915/AU915/KR920/AS923/RU864/IN865/EU868/CN470
	Antenna	2 x Internal Antennas
LoRaWAN	Antenna	1 x External Antenna
	Wireless Range	100 meters+ (Line of sight)**
	Connect Q'ty	Support up to 100 x LEO-S sensors*
Connectivity	Ethernet	10/100/1000 Base-T
	Wifi	IEEE 802.11 b/g/n, 2.4GHz
Others	Button	1 x Reset Button
	Power	1. DC Jack Connector for 9-24 $V_{DC}$ power supply
		2. 1 x 802.3 af PoE input
	Working Temperature	-40 ~ 70°C (-40 ~ 158°F)
	Storage Temperature	-40 ~ 85°C (-40 ~ 185°F)
	Operating Humidity	0 ~ 95% (non-condensing) at 25°C (77°F)
	dimension	180 x 110 x 56.5 mm (7.09 x 4.33 x 2.22 in)
	IP	65
	Certification	FCC, TELEC, CE, KC, RCM, SIRIM, NBTC

<sup>\*</sup> Dependent on usage scenario \*\* Test under laboratory conditions and for guideline purposes onl



### **Ordering Information**

Part Number	Description
USM-S67-G0WP0	USM-S67 LoRaWAN & WIFI Gateway 915
USM-S67-C0WP0	USM-S67 LoRaWAN & WIFI Gateway 470
USM-S67-E0WP0	USM-S67 LoRaWAN &WIFI Gateway 868

### **Packing List**

- 1 x LAN Cable(1.5M)
- 1 x Adapter
- 1 x Mounting Bracket
- 2 x Mounting Kits
- 1 x LoRaWAN Antenna

# USM-S67

#### **LoRaWAN Compact Gateway**



#### **Features**

- Support 8 half/full-duplex channels
- Enable security communication with multiple VPNs( IPsec/OpenVPN/L2TP/ PPTP/DMVPN)
- Detect and analyze the noise level and provide intuitive diagram for deployment
- Built-in network server and MQTT/HTTP/HTTPS API for easily integration

# **Specifications**

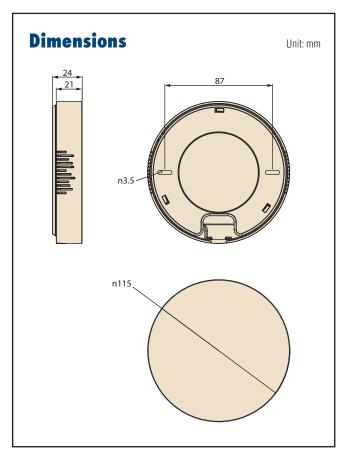
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General	CPU	528 MHz, ARM Cortex-A7
	Memory	256 MB DDR4
	Flash	4 GB eMMC
	LED Indicators	1 x SYS, 1 x LoRa
LoRaWAN	Frequecny	US915/AU915/KR920/AS923/CN470
	Antenna	2 x Internal Antennas
	Wireless Range	100 meters+ (Line of sight)**
	Connect Q'ty	Support up to 20 x LEO-S sensors*
Connectivity	Ethernet	10/100 Base-T
	Button	1 x Reset Button
	Button Power	1 x Reset Button 1.802.3 af PoE input 2.5V/1A by Type-C Port
		1.802.3 af PoE input
Othere	Power	1.802.3 af PoE input 2.5V/1A by Type-C Port
Others	Power Working Temperature	1.802.3 af PoE input 2.5V/1A by Type-C Port -20 ~ 50°C (-4 ~ 122°F)
Others	Power Working Temperature Storage Temperature	1.802.3 af PoE input 2.5V/1A by Type-C Port -20 ~ 50°C (-4 ~ 122°F) -40 ~ 85°C (-40 ~ 185°F) 0 ~ 95% (non-condensing) at 25°C
Others	Power Working Temperature Storage Temperature Operating Humidity	1.802.3 af PoE input 2.5V/1A by Type-C Port -20 ~ 50°C (-4 ~ 122°F) -40 ~ 85°C (-40 ~ 185°F) 0 ~ 95% (non-condensing) at 25°C (77°F)

# **Ordering Information**

Part Number	Description
USM-S67-G00P0	USM-S67 LoRaWAN Gateway 915
USM-S67-C00P0	USM-S67 LoRaWAN Gateway 470

## **Packing List**

2 x Mounting Kits



<sup>\*</sup> Dependent on usage scenario

\*\* Test under laboratory conditions and for guideline purposes only

\*\*\*CE by project