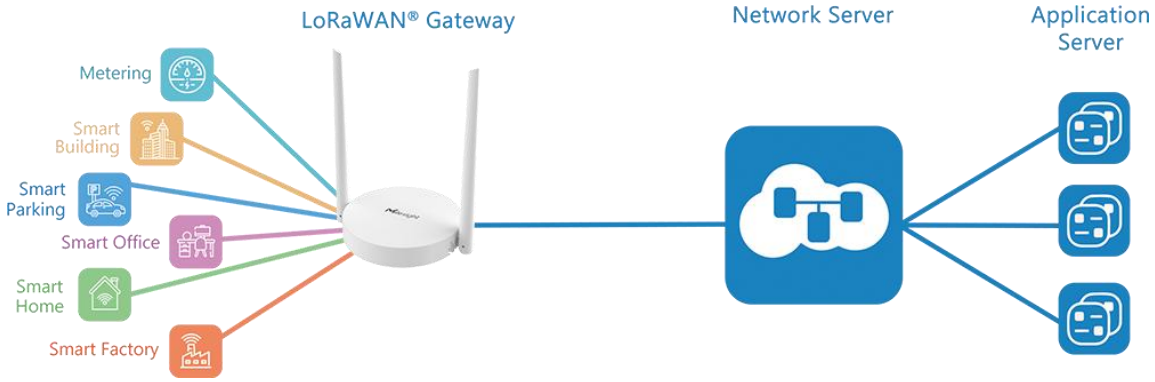
Mini LoRaWAN® Gateway

UG63

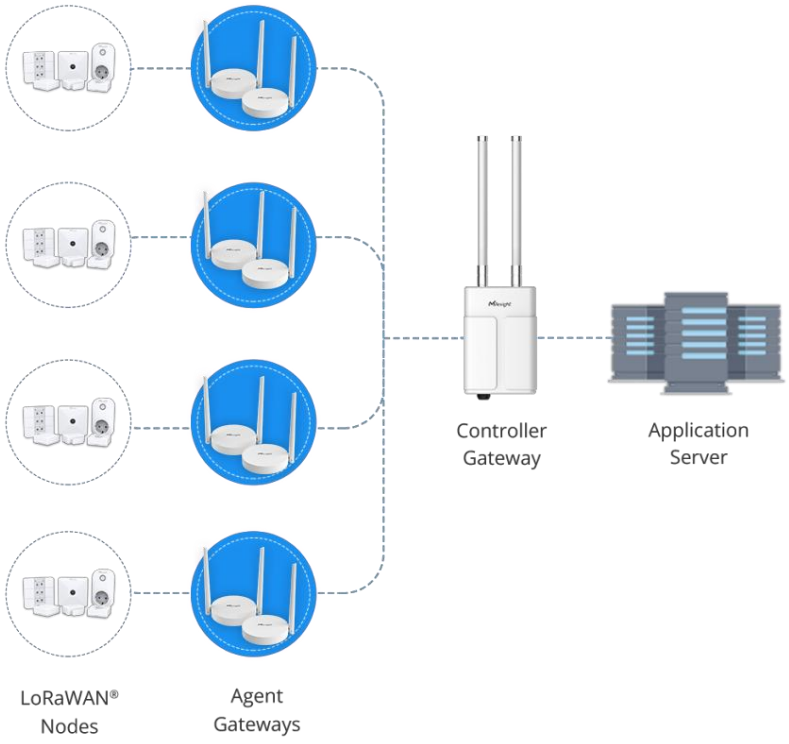


UG63 is a 8-channel lightweight indoor LoRaWAN® gateway. Adopting, SX1302 chip, UG63 can set up packet forwarding connection between end nodes and mainstream network servers (such as The Thing Network, Chirpstack, etc.). With its compact size and high performance, it is highly suitable for independent deployment of LoRaWAN® networks in small-scale scenarios or single spaces. It can also serve as a supplementary gateway, along with UG56/UG65/UG67 gateways, to enhance LoRaWAN® signal coverage in large-scale scenarios by filling in signal blind spots. it is an ideal supplement for wide indoor areas such as office, parking lots, campuses, etc.

◆ Application Example



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***Note:** This shows the blind-filling function among Milesight gateways.

◆ Features

- Equip with SX1302 chip, handing a higher amount of traffic with lower consumption
- 8 half-duplex channels for more than 2000 end-nodes connections
- Small in size for easy carrying & deployment
- Desktop, wall or ceiling mounting support
- Multi backhaul backups with Ethernet and Cellular (4G)
- Cover the blind spot of LoRaWAN® network by transmitting data to Milesight UG56/UG65/UG 67 controller gateway
- High cost performance, suitable for small applications
- Compatible with remote management system for simple deployment even in remote regions
- Compatible with mainstream network servers like The Things Stack, ChirpStack, AWS IoT Core for LoRaWAN®, etc.
- Embedded network server and MQTT API for easily integration

◆ Specifications

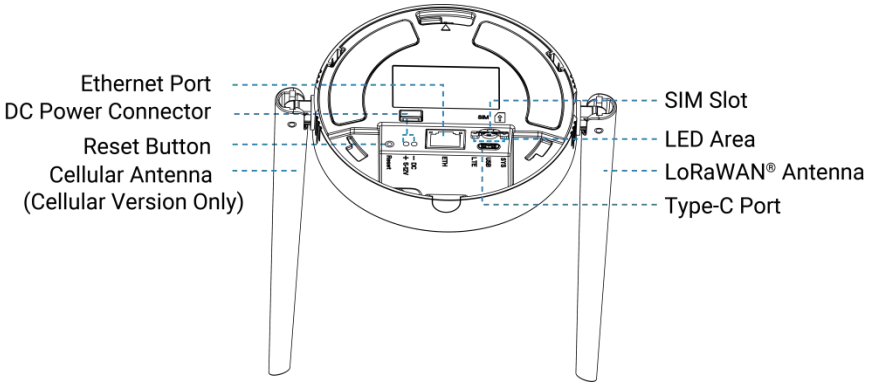
Hardware System	
CPU	Dual-core 240MHz, 32-bit Xtensa® LX7
Memory	8 MB PSRAM

Flash	16 MB Flash
LoRaWAN®	
Antenna Connector	1 × External Antenna
Channel	8 (Half-duplex)
Frequency Band	CN470/IN865/EU868/RU864/US915/AU915/KR920/AS923-1&2&3&4
Sensitivity	-140dBm Sensitivity @292bps
Tx Power	Max. 27dBm
Packet Forwarder	
Compatibility	Milesight Gateway Embedded NS, DeviceHub LNS, Milesight Development Platform LNS, etc. For more see ecosystem program.
Supported Devices	Around 2000 Class A/B/C Devices (Depending on uplink/downlink frequencies)
Advanced Feature	Packet Filter, Data Retransmission
Embedded Network Server	
Protocol	V1.0.3 Class A/Class C
Supported Devices	Max. 20 Devices
Integration	MQTT
Cellular Interface (Optional)	
Network	4G LTE (CAT 1)/GSM
Tx Power	LTE: Class 3 (23 dBm ±2 dB)
Antenna	1 x External Antenna
Cellular Band	**L08GL (Global except North America):** LTE-FDD: B1/2/3/4/5/7/8/12/13/17/18/19/20/25/26/28/66 LTE-TDD: B34/38/39/40/41; GSM: B2/3/5/8 **L09NA (North America):** LTE-FDD: B2/4/5/12/13/66
SIM Slots	1 (Micro SIM-3FF)
Ethernet Interface	
Port	1 × RJ45 WAN Port
Physical Layer	10/100 Base-T (IEEE 802.3)
Data Rate	10/100 Mbps (Auto-Sensing)
Interface	Auto MDI/MDIX
Mode	Full or Half Duplex (Auto-Sensing)

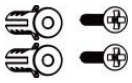
Ethernet Isolation	1.5 kV RMS
Wi-Fi	
Standards	IEEE 802.11b/g/n, 2.4 GHz
Mode	AP Mode (Device Configuration Only)
Security	WPA-PSK
Others	
LED Indicators	1 × SYSTEM, 1 x LTE
Button	1 × Reset Button
USB	1 × USB 2.0 (Type-C) for Power Supply and Console
Built-in	Watchdog, Timer
Network and Management	
Network Protocols	HTTP, HTTPS, MQTT
VPN	OpenVPN Client
Reliability	Link Backup
Configuration	Web, MQTT API, Milesight Development Platform, DeviceHub
Update	Web, Milesight Development Platform, DeviceHub
Diagnostics Tool	Ping
Power Supply and Consumption	
Power Supply	1. 5V/2A by Type-C Port 2. 5~12V by DC Power Cable 3. 802.3af standard PoE input by PoE Splitter
Power Consumption	Typical 1.3W, Max 3.1 W
Physical Characteristics	
Ingress Protection	IP30
Housing & Color	PC + ABS, White
Weight	140g (Non-cellular Version), 158.2g (Cellular Version)
Dimensions	Φ 115 x 21 mm (Φ 4.52 x 0.83 in) (Antenna Excluded)
Installation	Desktop, Wall or Ceiling Mounting
Environmental	
Operating Temperature	-20°C to +50°C (-4°F to +122°F)
Storage Temperature	-40°C to +85°C (-40°F to +185°F)
Relative Humidity	0% to 95% (non-condensing) at 25°C/77°F
Approvals	
Regulatory	CE, FCC

Environmental	RoHS

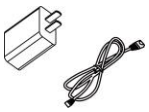
◆ Hardware Overview



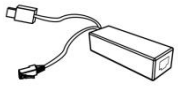
◆ Accessories



2 × Wall Mounting Kits



1 ×Type-C Cable (1m) & Power Adapter**



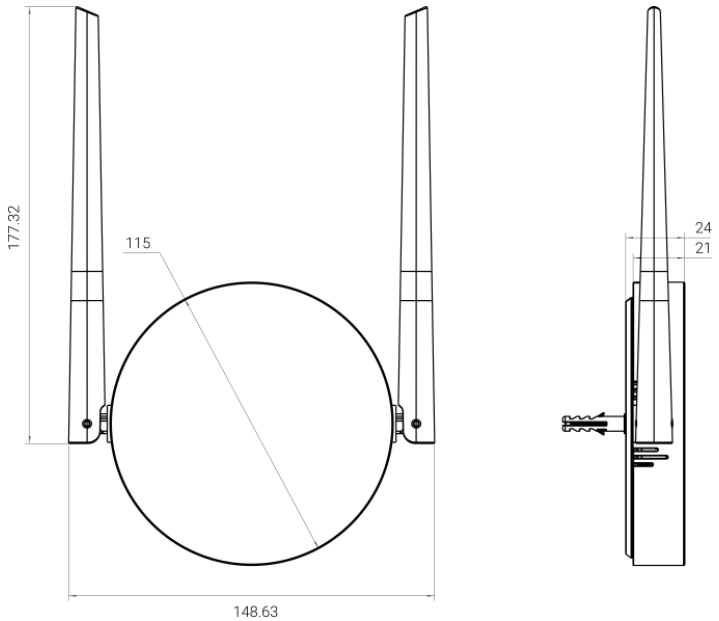
1 x PoE Splitter**

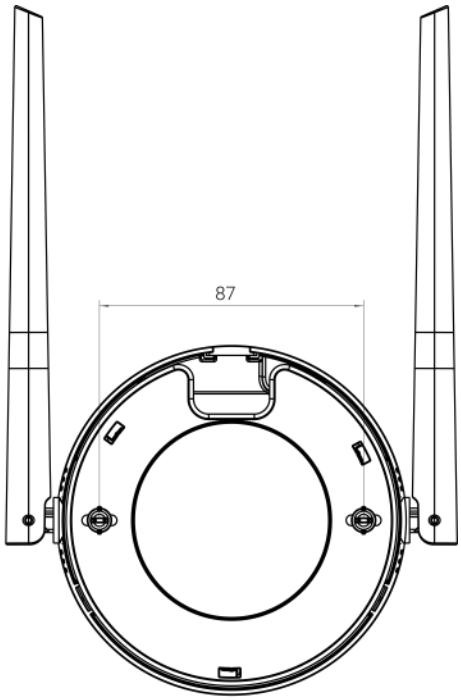
Note:

* Contact us if you need any other special accessories or customized accessories.

**One of the Type-C Cable&Power Adapter and PoE Splitter can be provided as standard accessory, while the other can be offered as an optional accessory.

◆ Dimensions(mm)




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