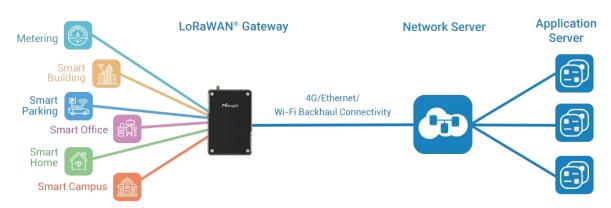
UG56 LoRaWAN® Gateway



UG56 is a robust 8-channel indoor LoRaWAN® gateway. Adopting SX1302 chip and high-performance quad-core CPU, UG56 supports connection with more than 2000 nodes. UG56 has line of sight up to 15 km and can cover about 2 km in urbanized environment, which is ideally suited to smart building, smart industries and many other indoor applications.

UG56 supports not only multiple back-haul backups with Ethernet, Wi-Fi and cellular, but also has integrated mainstream network servers (such as TTI, ChirpStack, etc.), and built-in network server and Milesight IoT Cloud for easy deployment.

Application Example



Features

- Quad-core industrial processor memory
- Equip with SX1302 chip, handling a higher amount of traffic with lower consumption
- 8 half-duplex channels
- Rugged metal enclosure for industrial applications
- Desktop or wall mounting
- Multi backhaul connectivity backups with Ethernet, cellular (4G/3G) and Wi-Fi
- DeviceHub and Milesight IoT Cloud provide easy and centralized management of remote devices

- Enable security communication with multiple VPNs like IPsec/OpenVPN/L2TP/PPTP/DMVPN
- Compatible with mainstream network servers like TTN, ChirpStack, Actility, etc.
- Detect and analyze the noise level and provide intuitive diagram for deployment
- Built-in network server and MQTT/HTTP/HTTPS API for easily integration
- Support BACnet/IP to integrate LoRaWAN data to BMS system easily
- Embedded Python SDK for users secondary development
- user-friendly Fast and programming by Node-RED development tool

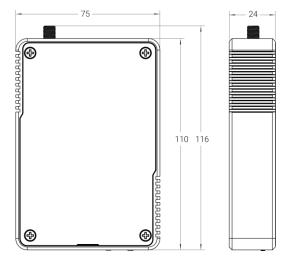
Specifications

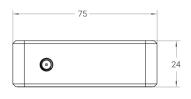
Hardware System	
CPU	Quad-core 1.3 GHz, 64-bit ARM Cortex-A35
Memory	512 MB DDR3 RAM
Flash	8 GB eMMC
Extendable Storage	1 × Micro SD Slot (Internal)
LoRaWAN	
Antenna Connector	1 × 50 Ω SMA Connector (Center PIN: SMA Female)
Channel	8 (Half-duplex)
Frequency Band	CN470/IN865/EU868/RU864/US915/AU915/KR920/AS923-1&2&3&4
Sensitivity	-140 dBm Sensitivity @292bps
Output Power	27 dBm Max
Protocol	V1.0 Class A/Class B/Class C and V1.0.2 Class A/Class B/Class C
LBT	Support
Ethernet Interface	
Port	1 × RJ45 (PoE PD supported)
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)	
Wi-Fi Interface		
Antenna	Internal Antenna	
Standards	IEEE 802.11b/g/n, 2.4 GHz	
Mode	AP or Client mode	
Security	WPA/WPA2 authentication, WEP/TKIP/AES encryption	
	802.11b: 18 dBm +/-2.0 dBm (11 Mbps)	
	802.11g: 15 dBm +/-2.0 dBm (6 Mbps)	
	802.11g: 15 dBm +/-2.0 dBm (54 Mbps)	
Tx Power	802.11n@2.4 GHz: 14 dBm +/-2.0 dBm (MCS0_HT20)	
	802.11n@2.4 GHz: 14 dBm +/-2.0 dBm (MCS7_HT20)	
	802.11n@2.4 GHz: 13 dBm +/-2.0 dBm (MCS0_HT40)	
	802.11n@2.4 GHz: 13 dBm +/-2.0 dBm (MCS7_HT40)	
Cellular Interface (C	Optional)	
Antenna Connector	$1 \times 50 \Omega$ SMA Connector (Center PIN: SMA Female)	
SIM Slot	1 (Mini SIM-2FF)	
Others		
Reset Button	1 × RST (Internal)	
Console Port	1 × Type-C	
LED Indicators	1 × SYSTEM, 1 × LoRa	
Built-in	Watchdog, Timer	
Software		
Network Protocols	PPPoE, SNMP v1/v2c/v3, TCP, UDP, DHCP, DDNS, HTTP, HTTPS, DNS,	
Network Protocols	ARP, SNTP, Telnet, SSH, MQTT, BACnet/IP, etc.	
VPN Tunnel	OpenVPN/IPsec/PPTP/L2TP/GRE/DMVPN	
Firewall	ACL/DMZ/Port Mapping/MAC Binding/URL Filter	
Management	Web, CLI, SMS, On-demand dial up, DeviceHub, Milesight IoT Cloud	
Reliability	WAN Failover	
App	Python SDK, Node-RED	
Power Supply and Consumption		
Power Input	1. 1 × 802.3 af PoE Input	
	2. 5V, 2A by Type-C Port	
Power Consumption	Typical 1.8 W, Max 6.9 W	

Physical Characteristics	
Ingress Protection	IP30
Housing & Color	Metal, Black
Dimensions	110 x 75 x 24 mm (4.33 x 2.95 x 0.94 in)
Installation	Desktop, Wall Mounting
Environmental	
Operating Temperature	-20°C to +60°C (-4°F to +140°F)
Storage Temperature	-40°C to +85°C (-40°F to +185°F)
Ethernet Isolation	1.5 kV RMS
Relative Humidity	0% to 95% (non-condensing) at 25°C/77°F
Approvals	
Regulatory	CE, FCC
Environmental	RoHS

Dimensions(mm)

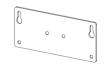




Accessories



1 × LoRaWAN® Magnetic Antenna



1 × Wall Mounting Bracket



2 × Bracket Fixing Screws



4 × Wall Mounting Kits



1 ×Type-C Cable & Power Adapter (Optional)



1 × Magnetic Cellular Antenna (Cellular Version Only)

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