

APPLICATIONS



- METERING
- SMART OFFICE
- SMART BUILDING
- SMART HOME
- SMART PARKING
- SMART CAMPUS

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FEATURES

QUAD-CORE INDUSTRIAL PROCESSOR
big memory

SX1302 CHIP
higher amount of traffic = lower consumption

RUGGED METAL ENCLOSURE
for industrial application

EASY & CENTRALIZED MANAGEMENT OF
remote devices

SUPPORT MAINSTREAM NETWORK
SERVERS
the things industries, chirpstack, etc.

MULTIPLE SECURITY COMMUNICATION
vpn like ipsec/openvpn/l2tp/pptp/dmvpn

EMBEDDED PYTHON SDK
for users secondary development

DETECT & ANALYZE NOISE LEVEL
provide intuitive diagram for deployment

FAST & USER FRIENDLY PROGRAMMING
by node-red development tool

MULTI BACKHAUL CONNECTIVITY
BACKUPS
ethernet, cellular (4G/3G) & wi-fi



UG56 Industrial LoraWAN Gateway

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

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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
Tx Power	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)
	802.11n@2.4 GHz: 14 dBm +/-2.0 dBm (MCS0-HT20)



UG56 Industrial LoraWAN Gateway

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 (Optional)

Antenna	Internal Antenna
Sim Slot	1 (Mini SIM-2FF)
Extendable Storage	1 × Micro SD Slot (Internal)

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, ARP, SNTP, Telnet, SSH, MQTT, 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 & 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)



UG56 Industrial LoraWAN Gateway

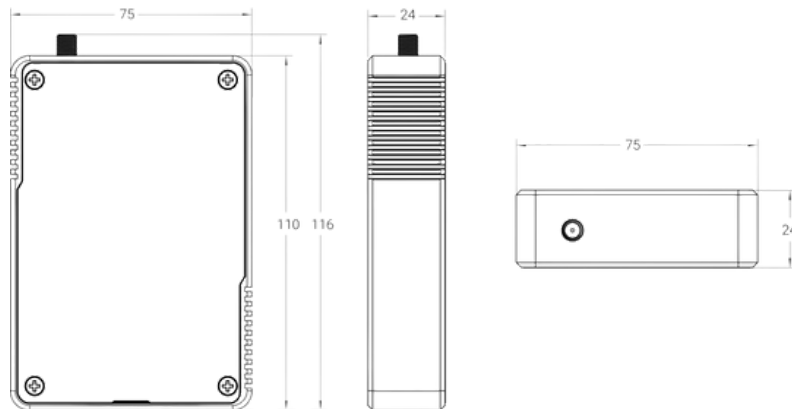
Installation

Desktop or 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	Isolation 1.5 kV RMS
Relative Humidity	0% to 95% (non-condensing) at 25°C/77°F

DIMENSIONS (MM)



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SCHEMATIC DIAGRAM

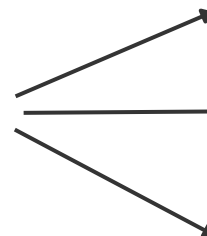
LoRaWAN Gateway

Network Server

Application Server



4G/Ethernet/Wi-Fi Backhaul
Connectivity



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