LoRa-Gate600

DIN-Rail Industrial 4G LoRa Gateway

- Support 1*10/100Base-T(X) WAN port, 1*4G antenna interface, 1*LoRa antenna interface, 1*GPS antenna interface, 1* dual Nano SIM card slot
- Support LoRa modulation and LoRaWAN network protocol to realize the communication between LoRaWAN terminals and LoRaWAN server
- Support backup of 2G/3G/4G cellular and wired WAN network
- Support BeiDou/GPS positioning and timing
- Support single/dual power input, DC 9~60V, support non polarity input
- High strength aluminum alloy shell, IP40 protection grade, fanless design, case heat dissipation, work reliably in -40℃ ~ +75℃ harsh industrial environment

Product Description

LoRa-Gate600 is a DIN-rail 4G industrial LoRa gateway. It adopts LoRa wireless modulation to realize low power consumption and long-distance data transmission, connecting LoRaWAN terminal equipment to uplink network terminal via 4G or wired Ethernet. The LoRa gateway provides 1 WAN port, 1 4G antenna interface, 1 LoRa antenna interface, 1 GPS antenna interface and dual DC 9~60V power input. It can be DIN rail mounted to meet the needs of various network sites.

This LoRa gateway supports WEB to configure a variety of network management functions, such as LoRa, WAN, 4G LTE, APN, link detection, NTP, GPS positioning, link status statistics, LoRa uplink/uplink data statistics. It supports network diagnosis through Ping, Traceroute, Nslookup, packet capture. The local log can be managed in terms of level and be downloaded. It supports system management like firmware upgrade, password modification, online restart etc,. It can be one-click restart or factory reset. The gateway is designed with premium industrial components for working in

-40~75℃ harsh environments. It has passed strict safety regulations and EMC tests to meet the requirements of severe industrial environment applications, so that it can be widely used in industries such as industrial automation, smart meter reading, smart logistics, smart medical care, smart agriculture, smart city etc,.

Features and Benefits

- Support 2G/3G/4G Cellular and wire WAN network and network backup
- The WAN port supports DHCP, static IP address
- The 4G network supports LTE-FDD and LTE-TDD, compatible with 2G/3G, supports double card in and single standby, APN
- Support LoRaWAN protocol of base Class A and functional Class C, can establish communication with LoRaWAN terminals and servers
- LoRa channel supports CN470_Band 0/1/2/3/4/5/6/7/8/9/10/11(Ch0-Ch95) optional
- Support monitoring CPU usage, memory usage, CPU temperature, device temperature, LoRa channel, GPS positioning
- Support LoRa uplink/downlink data statistic, monitor of LTE, wired WAN, LoRa, and GPS link status
- Support BeiDou/GPS positioning and timing for accurate positioning and nanosecond-level clock accuracy
- Support link detection, periodically check the 4G network link status for link recovery
- Support Ping, Traceroute, Nslookup, packet capture for network analysis and fault diagnosis
- Support clock synchronization with NTP client
- Log information records multiple levels of process information, and support local download and timing storage
- Support online restart, password modification, firmware upgrade and other system management

Specification

Software	
Management Function	View of basic, LoRa parameters, device parameters, GPS, etc,. Support static IP address, DHCP, LoRa channels setting, NTP client Support 2G/3G/4G, dual sim cards, APN, link detection, operation retreat Support link status, 4G module info, LoRa uplink/downlink data statistic Support Ping, Traceroute, Nslookup, packet capture Support log levels setting, timing storage and log download Support firmware re-write, password modify, online reboot
LoRa IoT	
Protocol	LoRaWAN (Class A, Class C)
Frequency Range	470MHz~510MHz
Data Rate	250bps~5470bps (@125kHz)
TX Power	17dBm (Max 23dBm when antenna excluded)
RX Sensitivity	SF7≤-126dBm, SF10≤-136dBm, SF12≤-140dBm
Working Mode	Half duplex
Channels	8 channels uplink, 1 channel downlink
Data Uplink	Wired WAN, wireless cellular 2G/3G/4G
Transmission Distance	3km
4G Cellular Network	
Network Format	LTE-FDD, LTE-TDD,WCDMA,GSM/EDGE
Working Frequency	LTE-FDD: B1/B3/B5/B8 LTE-TDD: B34/B38/B39/B40/B41 WCDMA: B1/B5/B8 GSM/EDGE: B3/B8
Max Transfer Rate in Theory	LTE-FDD: DL 150Mbps/ UL 50Mbps LTE-TDD: DL 130Mbps/ UL 30Mbps SUPA+: DL 21Mbps/ UL 5.76Mbps WCDMA: DL 384kbps/ UL 384kbps EDGE: DL 236.8kbps/ UL 236.8kbps GRPS: DL 85.6kbps/ UL 85.6kbps

Specification

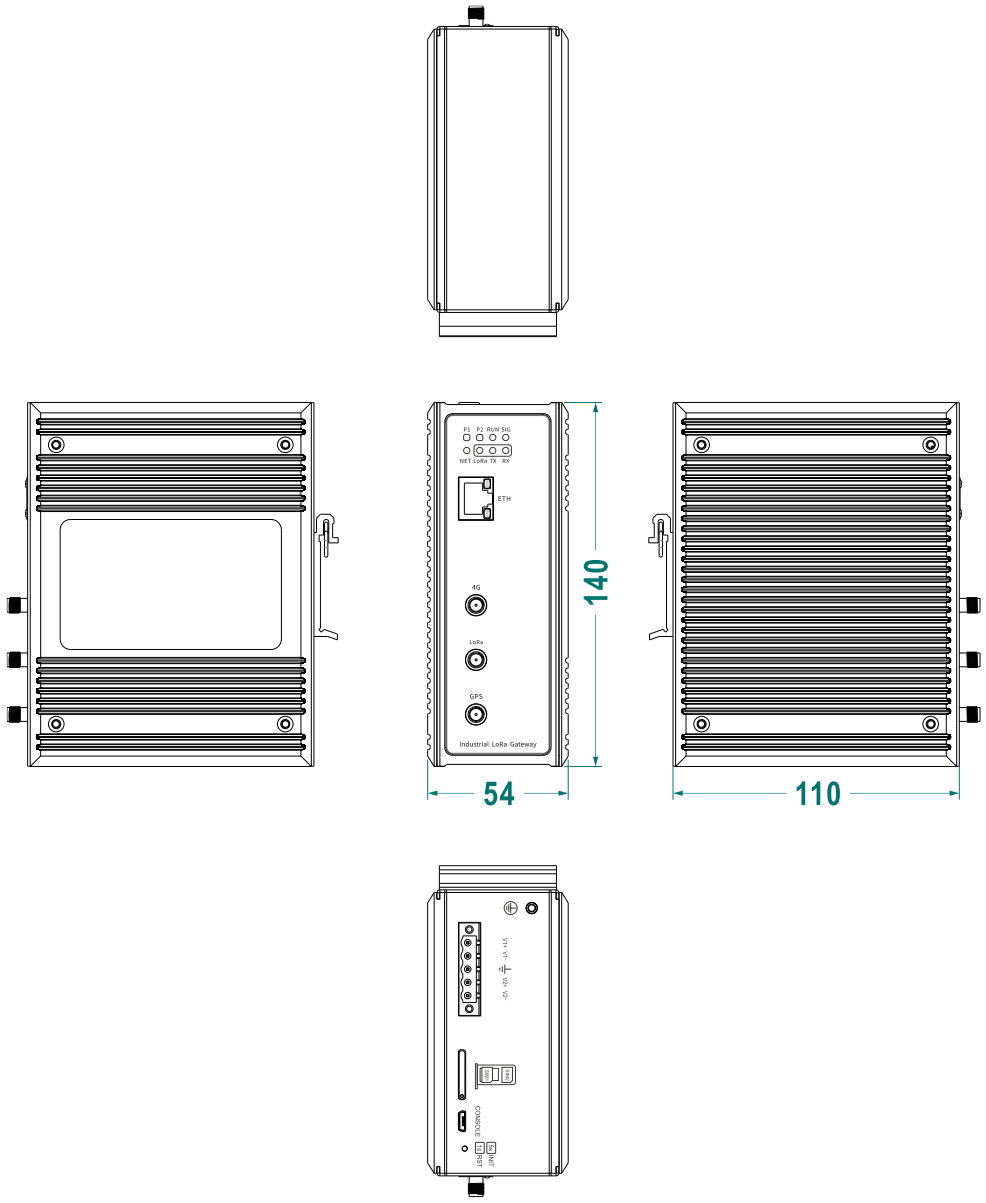
Interface	
Copper Port	1×10/100Base-T(X) auto-sensing RJ45 WAN port, support both the full-duplex mode and half-duplex mode, auto-MDI/MDIX
Antenna Connector	1×4G antenna connector (SMA-K) 1×LoR antenna connector (SMA-K) 1×GPS antenna connector (SMA-K)
SIM Card Slot	2× dual Nano SIM card slots, dual card single standby
CONSOLE Port	1×CONSOLE port, USB2.0 compliance, Micro-B USB2.0 socket
Status LEDs	Power, Operation, 4G signal, NET status, LoRa status, LoRa antenna send/receive, WAN status
Power Supply	
Input Voltage	DC 9~60V, redundant dual power supply
Power Consumption	＜5.8W@DC24V(full load)
Connection	5-pin 5.08mm pitch terminal block
Protection	No polarity input
Physical Characteristic	
Dimensions	140×54×110mm (DIN rail mounting clip excluded)
Installations	Standard 35mm DIN rail
IP code	IP40
Weight	About 0.63kg (antenna excluded)
Working Environment	
Operating Temp	-40℃~+75℃
Storage Temp	-40℃~+85℃
Relative Humidity	5%~95% (non-condensing)
Industry Standard	

Specification

EMC	IEC 61000-4-2(ESD): Level 4 IEC 61000-4-5(Surge): Level 3 IEC 61000-4-4(EFT): Level 4
Certification	CE, FCC, RoHS

Dimensions

Unit: mm



Ordering Information

Standard Model	10/100M WAN Port	4G Antenna Interface	LoRa Antenna Interface	GPS Antenna Interface	Input Voltage
LoRa-Gate600	1	1	1	1	Dual DC 9~60V

Contact Us

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