



## WLRI-G08-M

### LoRaWAN® Gateway

The WLRI-G08-M is a robust 8-channel indoor LoRaWAN® gateway. Adopting SX1302 LoRa chip and high-performance quad-core CPU, WLRI-G08-M supports connection with more than 2000 nodes. WLRI-G08-M has line of sight up to 15 km\* and can cover about 2 km in urbanized environment, which is ideally suited to smart office, smart building and many other indoor applications.

WLRI-G08-M 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 WatchNET IoT Cloud for easy deployment.

#### Features:

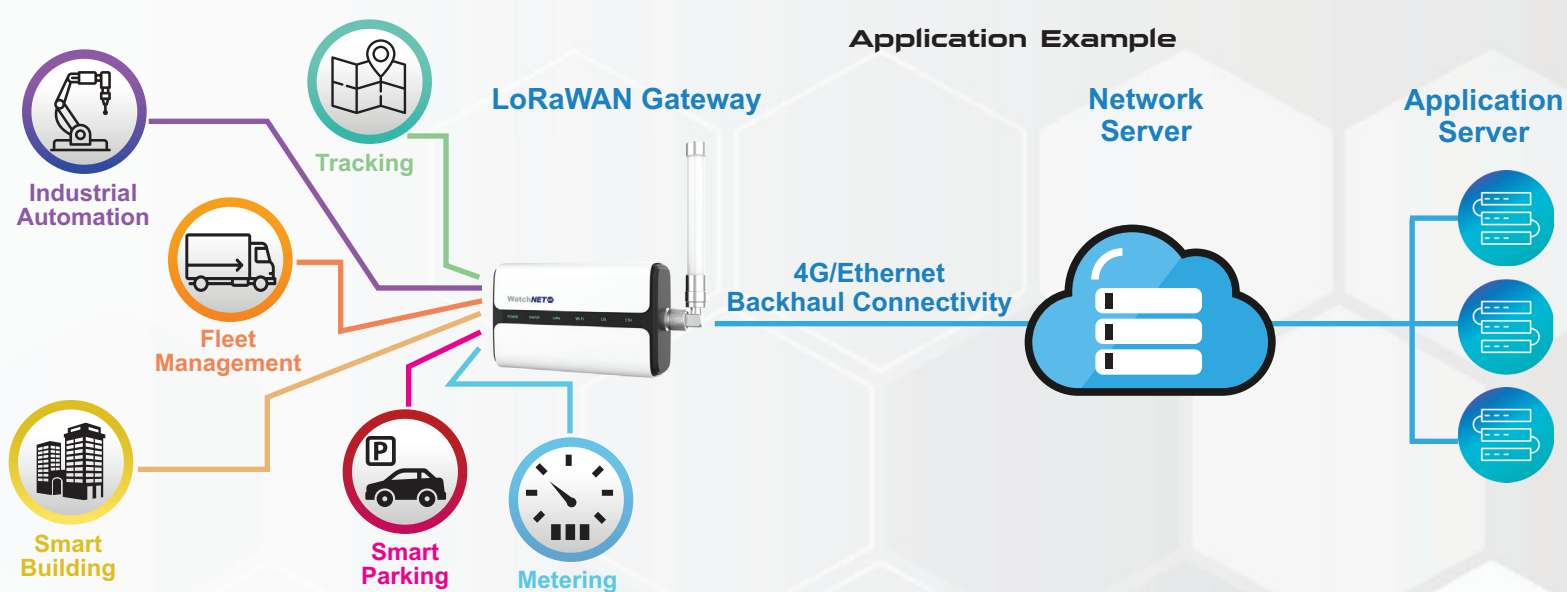
- Quad-core industrial processor with better memory
- Equip with SX1302 chip, handling a higher amount of traffic with lower consumption
- 8 half/full-duplex channels
- IP65 enclosure and industrial design for parts of outdoor environment applications like eaves
- Desktop, wall or pole mounting
- Multi backhaul backups with Ethernet, cellular (4G/3G) and Wi-Fi
- DeviceHub and WatchNET 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 The Things Industries, ChirpStack, 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
- Embedded Python SDK for users secondary development
- Fast and user-friendly programming by Node-RED development tool

\* Coverage between 200 to 500 meters inside the building depending upon the building structure, environment & level obstruction

## Application Example

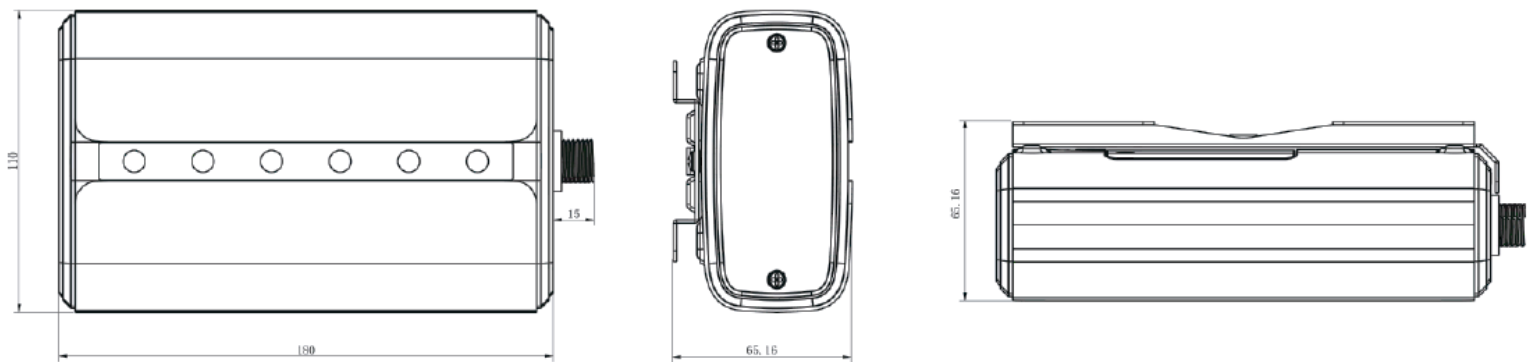


## Technical Specifications

| Hardware System               |   |
|-------------------------------|---|
| CPU                           | Quad-core 1.5 GHz, 64-bit ARM Cortex-A53  |
| Memory                        | 512 MB DDR4 RAM   |
| Flash                         | 8 GB eMMC   |
| LoRaWAN                       |   |
| Antenna                       | 2 × Internal Antennas (Optional: 1 × 50 Ω N-Female External Connector)  |
| Channel                       | 8 (Half/Full-duplex)  |
| Frequency Band                | CN470/IN865/EU868/RU864/US915/AU915/KR920/AS923-1&2&3&4   |
| Sensitivity                   | -140dBm Sensitivity @292bps   |
| Output Power                  | 27dBm Max   |
| Protocol                      | V1.0 Class A/Class B/Class C and V1.0.2 Class A/Class B/Class C   |
| Ethernet Interface            |   |
| Port                          | 1 × RJ45 (PoE PD supported)   |
| Physical Layer                | 10/100/1000 Base-T (IEEE 802.3)   |
| Data Rate                     | 10/100/1000 Mbps (Auto-Sensing)   |
| Interface                     | Auto MDI/MDIX   |
| Mode                          | Full or Half Duplex (Auto-Sensing)  |
| Wi-Fi Interface               |   |
| Antenna                       | Internal Antenna  |
| Standards                     | IEEE 802.11 b/g/n, 2.4GHz   |
| Mode                          | AP or Client mode   |
| Security                      | WPA/WPA2 authentication, WEP/TKIP/AES encryption  |
| Tx Power                      | 802.11b: 18 dBm +/-2.0 dBm (11 Mbps)<br>802.11g: 15 dBm +/-2.0 dBm (6 Mbps)<br>802.11g: 15 dBm +/-2.0 dBm (54 Mbps)<br>802.11n@2.4 GHz: 14 dBm +/-2.0 dBm (MCS0_HT20)<br>802.11n@2.4 GHz: 14 dBm +/-2.0 dBm (MCS7_HT20)<br>802.11n@2.4 GHz: 13 dBm +/-2.0 dBm (MCS0_HT40)<br>802.11n@2.4 GHz: 13 dBm +/-2.0 dBm (MCS7_HT40) |
| Cellular Interface (Optional) |   |
| Antenna                       | Internal Antenna  |
| SIM Slot                      | 1 (mini SIM-2FF)  |
| Others                        |   |
| Reset Button                  | 1 × RST   |
| Console Port                  | 1 × Type-C  |
| LED Indicators                | 1 × POWER, 1 × STATUS, 1 × LoRa, 1 × Wi-Fi, 1 × LTE, 1 × ETH  |
| Built-in                      | Watchdog, RTC, 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, WatchNET IoT Cloud, Yeastar Workplace Platform       |
| Reliability                  | WAN Failover  |
| App                          | Python SDK, Node-RED  |
| Power Supply and Consumption |   |
| Power Input                  | 1. DC Jack Connector for 9-24 VDC power supply<br>2. 1 × 802.3 af PoE input                       |
| Power Consumption            | Typical 2.9 W, Max 4.2 W  |
| Physical Characteristics     |   |
| Ingress Protection           | IP65  |
| Dimensions                   | 180 x 110 x 56.5 mm (7.09 x 4.33 x 2.22 in)   |
| Installation                 | Desktop, Wall or Pole Mounting  |
| Environmental                |   |
| Operating Temperature        | -40°C to +70°C (-40°F to +158°F)<br>Reduced Cellular Performance Above 60°C                       |
| 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)



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Sept. 08, 2022

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