

# MKGW2-LW Datasheet

Version	Description	Editor	Date
1.0	Initial version create	Iris	2020/5/7
1.1	Add new frequency AU915/AS923/IN865	Iris	2020/6/4

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## 1 Product Introduction

MKGW2-LW is 8 channels standard LoRaWAN®-Based gateway for indoor use. Based on the Semtech SX1301/SX1257 chipset designs, and integrate a high performance CPU TR7688AB with 128M DDR and 32M flash. The gateway use Semtech Packet Forward and support LoRaWAN Class A/C protocol and WiFi IEEE 802.11b/g/n standard. User can connect the gateway to the third part cloud server via WiFi or Ethernet. And it also support modify the gateway parameters on the web UI via WiFi or Ethernet. The gateway has a compact appearance and easy to install on the roof, wall and indoor environment. It can be widely used for smart factory, smart building, smart office and other LPWAN application system.

## 2 Application

- Smart home
- Smart building
- Smart office
- Other indoor use case

## 3 Features

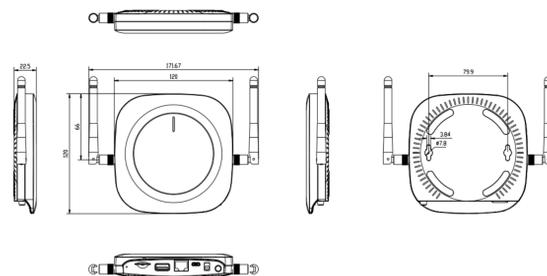
- Based on LoRaWAN®-Based Protocol
- Support WiFi AP hotspot access gateway
- WEB interface for related configuration and status view
- Support one key reset
- Support download log
- Support upgrade firmware by OTA or USB
- Easy for install

## 4 Specifications

### 4.1 Technical Parameter

Type	Parameter
CPU	TR7688AB
Memory	128M DDR/ 32M flash
LoRa Chipset	1x SX1301/2x SX1257
LoRa Standard	LoRaWAN V1.0.2 for Class A and Class C
LoRa frequency	EU868/US915/AU915/AS923/IN865
LoRa Transmit Power	Max 23dBm
LoRa Sensitivity	-140dBm@SF12, BW=125kHz
LoRa Communication Distance	Max 3Km in urban
WiFi standard	IEEE 802.11b/g/n
WiFi Data Rate	Max 150Mbps
WiFi Transmit Power	18 dBm
WiFi Communication distance	Max 300m
Power Supply	DC: 12V/1A POE: 48V/1A USB: 5V/2A
Antenna	WiFi antenna: 5dBi LoRa antenna: 5dBi
Interface	Reset button PoE Port DC Power Port Micro USB Port RJ45 Network Port USB Upgrade Port 3xLED 2x Antenna
Dimension	120mm x 120mm x 22.5mm (without antenna)
Operating Temperature	0-55°C
Storage Temperature	-20-65°C

### 4.2 Mechanical Draws



## 5 Interface



No.	Type	Function	Remark
1	Reset button	1.Reset to factory setting 2.System update	1.Reset: press button and keep 5s 2.Update: short press
2	USB Port	Insert a USB flash drive with upgrade file for system upgrade	The name of upgrade file is required to be: <b>MKGW2-LW-Upgrade.bin</b>
3	POE Port	1.POE power supply 2.Ethernet Access	IEEE 802.3at Type1 compliance Power Specification: 48V/1A
4	Micro USB	USB power supply	Rated: 5V/2A
5	DC Power Port	DC power supply	Rated: 12V/1A
6	Switch Button	Power On / Power Off	
7	WiFi Antenna	WiFi Antenna	
8	LoRa Antenna	LoRa Antenna	
9	Power LED	Indicator system status	1.System works normally: GREEN 2.System works abnormally: RED 3. System upgrade: GREEN (Blinking)
10	Network LED	Indicator network status	1.No network: YELLOW 2.ETH connection: BLUE
11	Communication LED	Indicator LoRa module and server communication status	1.LoRa COMM ✓, Server COMM x :BLUE 2.LoRa COMM x, Server COMM ✓ : YELLOW 3.LoRa COMM ✓, Server COMM ✓ : GREEN 4.LoRa COMM x, Server COMM x : RED

## 6 Order Information

Product Type	Product Description
MKGW2-LW-US915	915Mhz Moko LoRaWAN Gateway-North America
MKGW2-LW-EU868	868Mhz Moko LoRaWAN Gateway-Europe
MKGW2-LW-AU915	915Mhz Moko LoRaWAN Gateway-Australia
MKGW2-LW-AS923	868Mhz Moko LoRaWAN Gateway-Australia
MKGW2-LW-IN865	868Mhz Moko LoRaWAN Gateway-India