

ED-GWL2010

An Indoor LoRa Gateway Based on Raspberry Pi 4

- ◆ Broadcom BCM2711, quad core Arm Cortex-A72 (ARM v8) 64-bit SoC @ 1.5GHz
- ◆ LPDDR4 from 1GB to 8GB, SD card storage from 32GB to 64GB
- ◆ 1 x Gigabit Ethernet, optional 2.4GHz & 5GHz dual-band Wi-Fi/Bluetooth
- ◆ LoRa module powered by Semtech SX1302 baseband processor and SX1250 TX/RX front-end
- ◆ Support global license-free frequency band including CN470, EU868 and US915
- ◆ Support 12V DC power input
- ◆ 1 x USER button, 1 x LED
- ◆ Metal case design, built-in crypto authentication



Specifications

System	
CPU	Broadcom BCM2711, quad core Arm Cortex-A72 (ARM v8) 64-bit SoC @ 1.5GHz
VPU	H.265 (HEVC), up to 4Kp60 decode H.264, up to 1080p60 decode, 1080p30 encode
GPU	OpenGL ES 3.1 & Vulkan 1.0
Memory	Options for 1GB, 2GB, 4GB, 8GB LPDDR4-3200 SDRAM
Storage	Options for 32GB, 64GB SD card storage

Software	
Operating System	Raspberry Pi OS (Lite) 64-bit

Panel I/O	
Power	1 x DC IN, DC jack connector, supporting 12V input.
1000M Ethernet	1 x adaptive 10/100/1000M ethernet port, RJ45 connector. It can be used to access the network.
LoRa Antenna Port	1 x SMA port, using to connect LoRa antenna
Wi-Fi/BT Antenna Port	1 x SMA port (optional), using to connect Wi-Fi/BT antenna

Button and Indicator

Button	1 x USER button, you can define the function according to actual needs.
LED	1 x USER LED, you can define the color according to actual needs.

Internal IO

SD Card Slot	1 x Micro-SD card slot, which is used to install SD card. It supports booting the OS from SD card
USB 2.0	2 x USB 2.0 ports, dual layer type A connector, each channel supports up to 480Mbps.
USB 3.0	2 x USB 3.0 ports, dual layer type A connector, each channel supports up to 5Gbps.
HDMI	2 x HDMI ports, Micro HDMI connector, supporting 4K 60Hz

Expansion Performance

Crypto Authentication	It can be matched to realize the required upper layer application and improves the security of device.
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Electrical Characteristics

Input Voltage	12V DC
Power Consumption	18W (Max)

Mechanical Characteristics

Dimensions	95mm x 95mm x 24mm (WxDxH, antenna is not included.)
Weight	300g
Installation	Placing on the desk

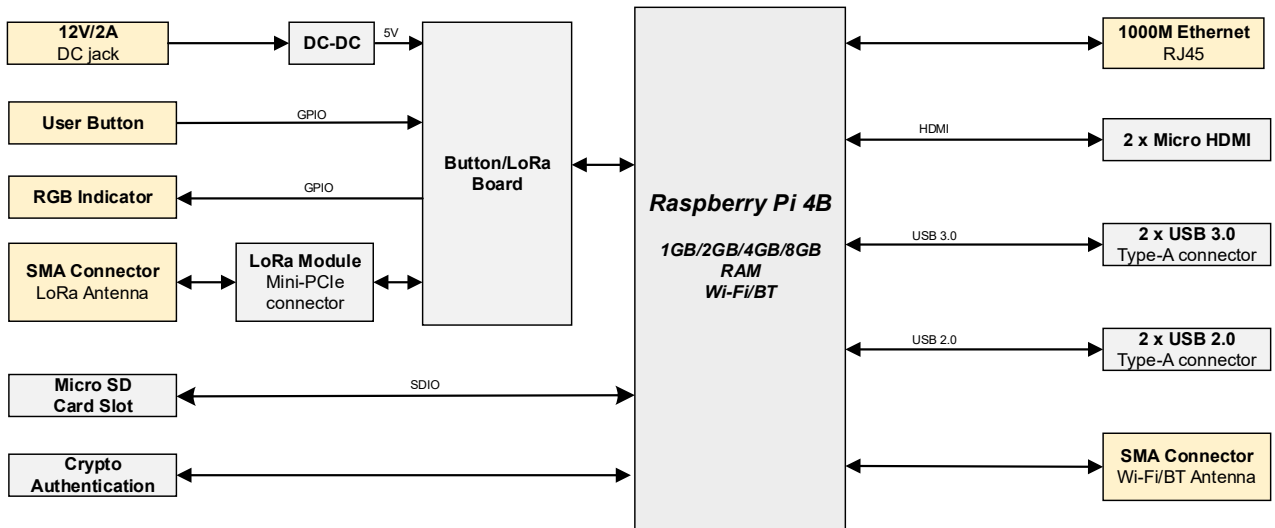
Wireless

Wi-Fi/Bluetooth (optional)	2.4GHz & 5GHz dual-band Wi-Fi and Bluetooth with antenna. <ul style="list-style-type: none"> • 2.4GHz Wi-Fi: Compatible with IEEE 802.11 b/g/n • 5GHz Wi-Fi: Compatible with IEEE 802.11 a/n/ac • The Bluetooth supports 2402MHz ~ 2480MHz frequency
LoRa	Support three LoRa modules with antenna <ul style="list-style-type: none"> • EU868 Module: 868MHz • US915 Module: 915MHz • CN470 Module: 470 MHz

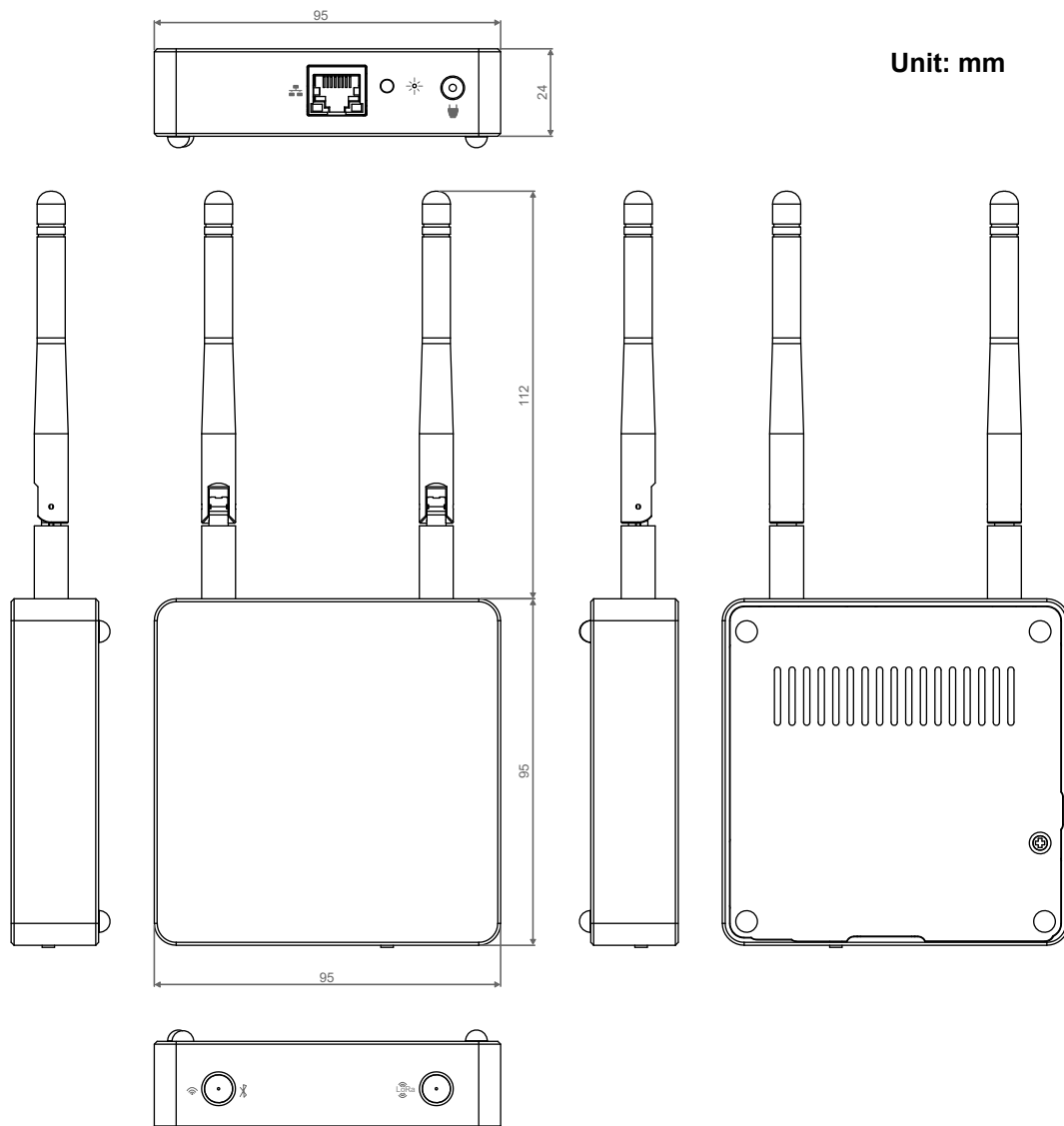
Environmental

Operating Temperature	-25°C ~ 60°C
Storage Temperature	-25°C ~ 60°C
Ambient Humidity	5% ~ 95% (non-condensing)

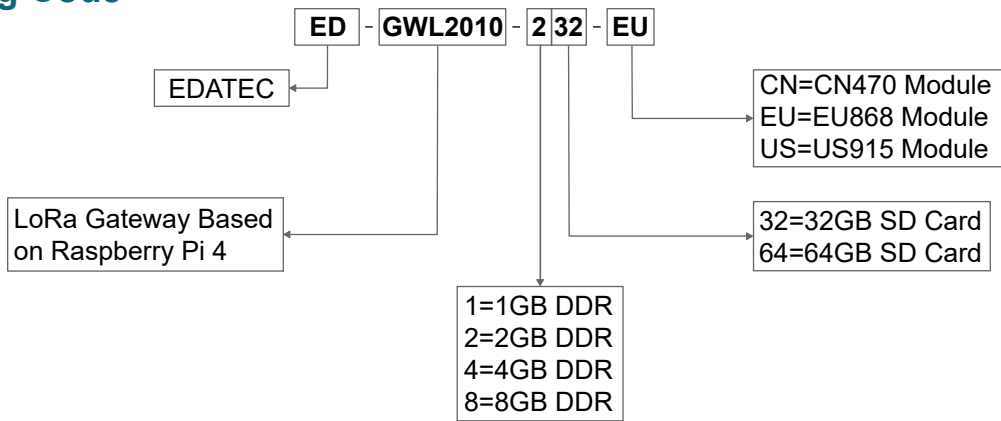
System Diagram



Dimensions



Ordering Code



Example

P/N: **ED-GWL2010-232-EU**

Configuration: An indoor LoRa Gateway Based on Raspberry Pi 4, with Wi-Fi & Bluetooth, 2GB DDR, 32GB SD card and EU868 LoRa Frequency.

Optional Accessory

You can choose a power adapter according to actual needs.

Model	Description	Picture
ED-PSU1202-UK	100~240VAC to 12VDC/2A Adapter, with UK AC plug, 5.5mm DC plug	
ED-PSU1202-US	100~240VAC to 12VDC/2A Adapter, with US AC plug, 5.5mm DC plug	
ED-PSU1202-AU	100~240VAC to 12VDC/2A Adapter, with AU AC plug, 5.5mm DC plug	
ED-PSU1202-EU	100~240VAC to 12VDC/2A Adapter, with EU AC plug, 5.5mm DC plug	

NOTE: Each model contains only one of the UK, US, AU and EU plugs.

Packing List

- 1 x ED-GWL2010 Unit
- 1 x LoRa Antenna
- **[Wi-Fi/BT Version - optional]** 1 x 2.4GHz/5GHz Wi-Fi/BT Antenna