

ED-GWL2120

Battery Powered LoRa Gateway with 3.5" Display, Wi-Fi/4G LTE and GNSS support

- ◆ Broadcom BCM2711, quad core Arm Cortex-A72 (ARM v8) 64-bit SoC @ 1.5GHz
- ◆ LPDDR4 from 1GB to 8GB, eMMC storage from 8GB to 32GB
- ◆ 1 x Gigabit Ethernet, optional 2.4GHz and 5GHz dual-band Wi-Fi, Bluetooth, on-board CAT1 4G LTE and GNSS support
- ◆ 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
- ◆ 3.5" MIPI DSI TFT LCD, resolution 800x480
- ◆ Built-in rechargeable 18650 battery, support 12V DC power input
- ◆ RTC, Buzzer, 2x USER button, 2x LED
- ◆ Metal case design, compatible with VESA standard bracket installation



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 8GB, 16GB, 32GB eMMC storage

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

LCD	
LCD Size	3.5" TFT
Resolution	800 x 480
Colors	16.7MB
Active Area	75.60mm(H) x 45.36mm(V)
Luminance	300cd/m ²

Switch/Button and Indicator	
ON/OFF	1 x ON/OFF DIP switch for switching power supply.
Reset	1 x Reset button, which can reset the device.
USER Button	2 x USER buttons marked with up and down
USER LED	2 x USER LEDs, including a red indicator and a green indicator

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.
UART	1 x debug UART port (TTL level), 3-Pin 2.54mm pitch WTB connector, using to debug device
GNSS Antenna Port	1 x SMA port, using to connect GNSS antenna
4G Antenna Port	1 x SMA port, using to connect 4G antenna
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

Internal IO	
Micro USB	1 x Micro USB port, which supports to flash to eMMC for the system.

Expansion Performance	
Buzzer	A tip or an abnormality can be configured according to actual application, which realizes the alarm function.
RTC	We provide a battery base, and a CR1220 battery can be installed as a backup power supply for RTC, which can ensure that the system clock is not affected by device power-off.
Power Management	Support 12V DC power in and battery power with charge management. Support low voltage detection for external DC power.
GNSS	Built-in GNSS, Support GPS, BeiDou and GLONASS.

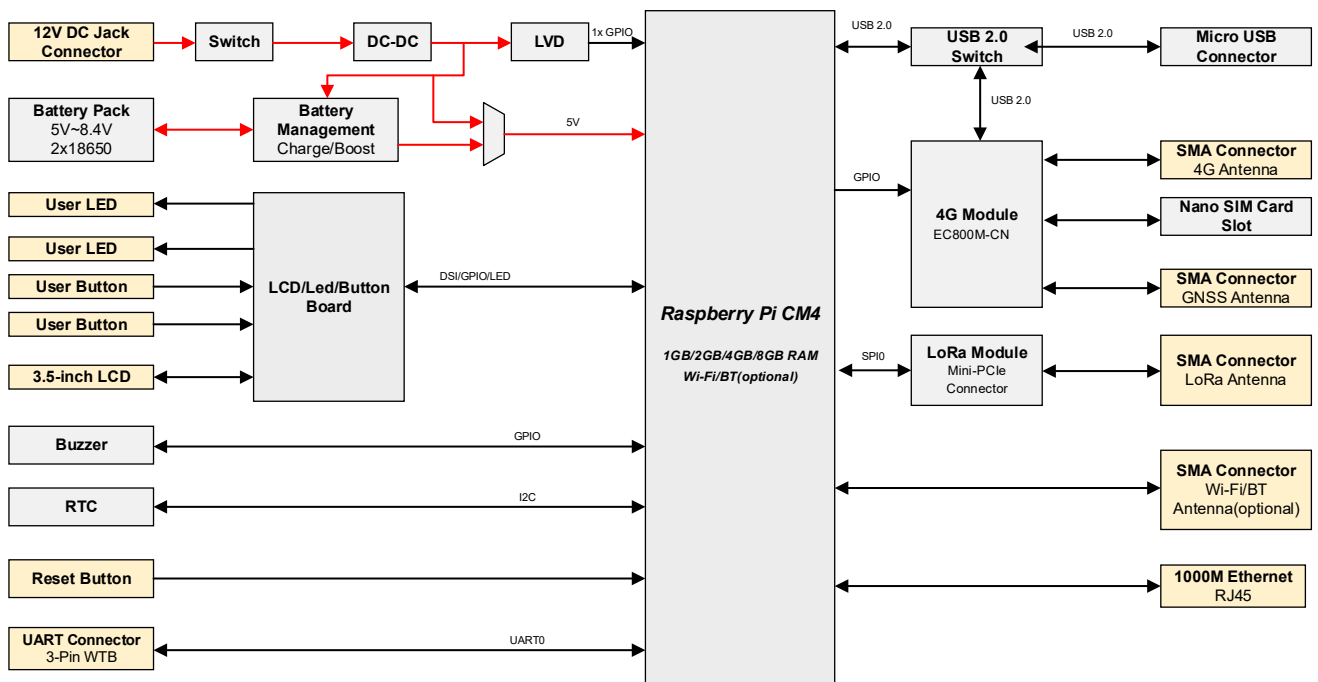
Electrical Characteristics	
Input Voltage	12V DC
Power Consumption	12W (Max)

Mechanical Characteristics	
Dimensions	122mm x 88mm x 40.5mm (WxDxH, antenna is not included.)
Weight	500g
Installation	Wall mounting

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
4G	Built-in EC800M-CN module with antenna, support 4G CAT1, compatible with Nano SIM card LTE-FDD: B1/B3/B5/B8 LTE-TDD: B34/B38/B39/B40/B41
GNSS	Built-in GNSS function with antenna <ul style="list-style-type: none"> • GPS L1 C/A: 1575.42 ±1.023 MHz • BeiDou B1I: 1561.098 ±2.046 MHz • GLONASS L1: 1597.78~1605.66 MHz
LoRa	Support three LoRa modules with antenna <ul style="list-style-type: none"> • EU868 Module: 868MHz • US915 Module: 915MHz • CN470 Module: 470 MHz

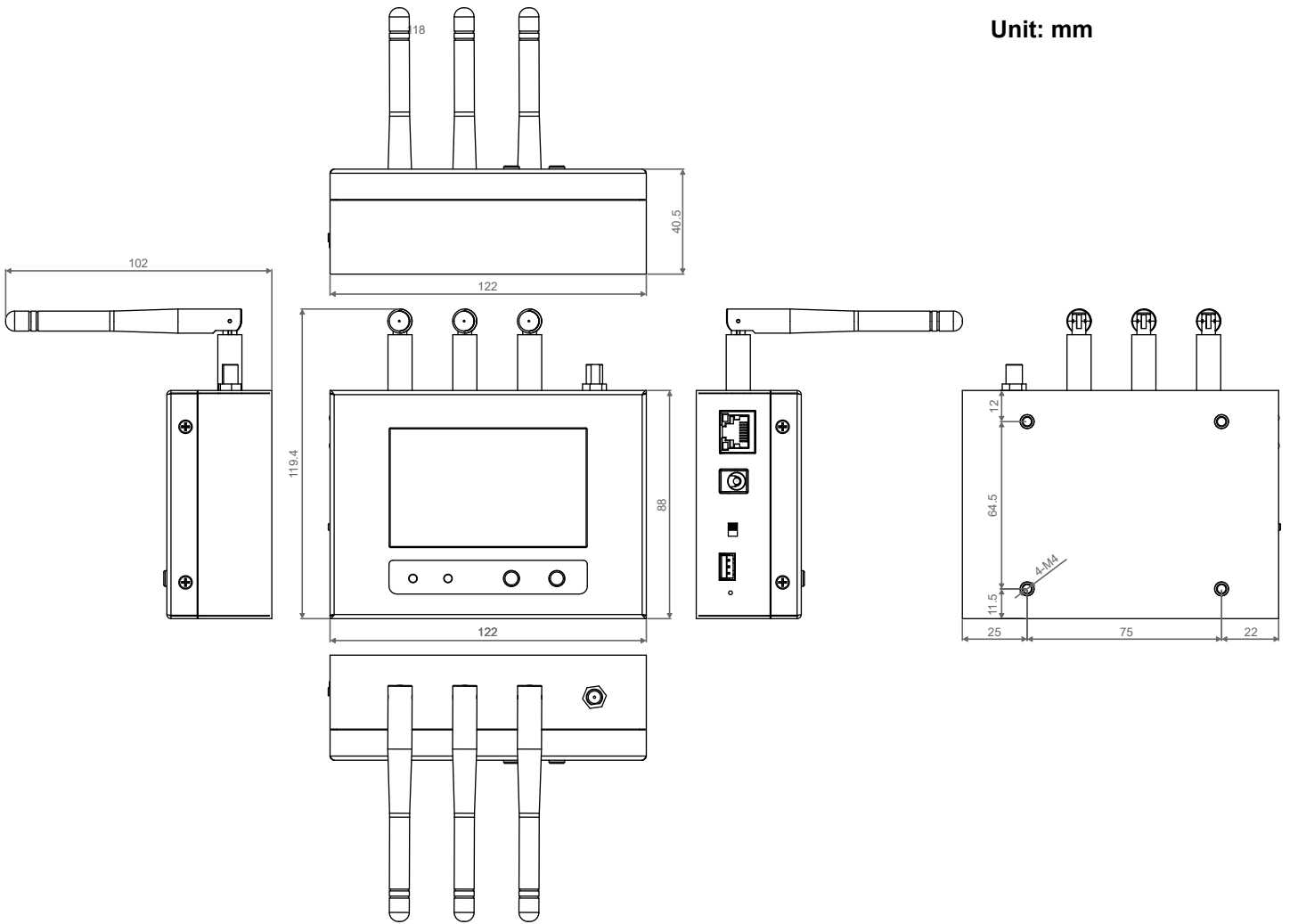
Environmental	
Operating Temperature	-15°C ~ 50°C
Storage Temperature	-20°C ~ 55°C
Ambient Humidity	5% ~ 95% (non-condensing)

System Diagram

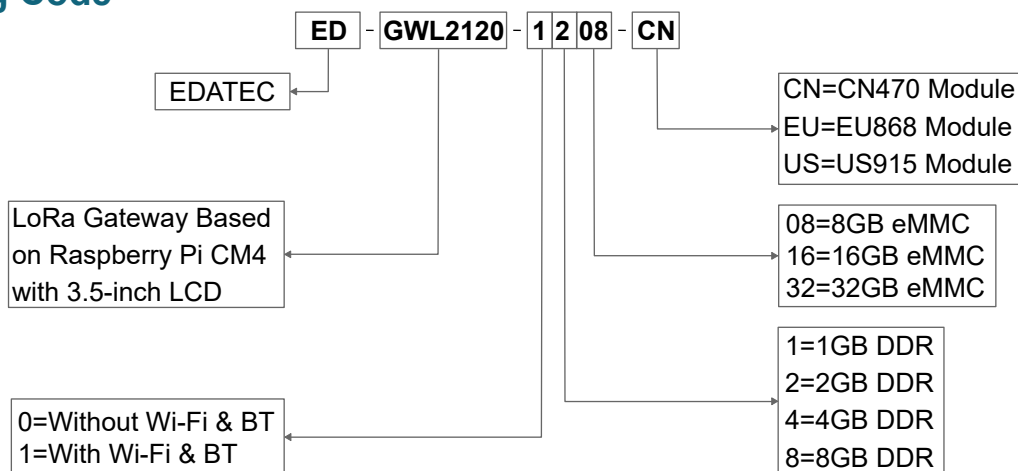


Dimensions

Unit: mm



Ordering Code




Example

P/N: **ED-GWL2120-1208-CN**

Configuration: LoRa Gateway Based on Raspberry Pi CM4, with Wi-Fi & Bluetooth, 4G, 2GB DDR, 8GB eMMC and CN470 Module.

Optional Accessory

You can choose a power adapter according to actual needs.

Model	Description	Picture
ED-PSU1201-UK	100~240VAC to 12VDC/1A Adapter, with UK AC plug, 5.5mm DC plug	
ED-PSU1201-US	100~240VAC to 12VDC/1A Adapter, with US AC plug, 5.5mm DC plug	
ED-PSU1201-AU	100~240VAC to 12VDC/1A Adapter, with AU AC plug, 5.5mm DC plug	
ED-PSU1201-EU	100~240VAC to 12VDC/1A Adapter, with EU AC plug, 5.5mm DC plug	

Packing List

- 1 x ED-GWL2120 Unit
- 1 x GNSS Antenna
- 1 x LoRa Antenna
- 1 x 4G Antenna
- **[Wi-Fi/BT Version - optional]** 1 x 2.4GHz/5GHz Wi-Fi/BT Antenna