

BROWAN WLRGFM-100 MerryIoT Hub IoT Gateway User Manual

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Browan Communications Inc.

No.15-1, Zhonghua Rd.,
Hsinchu Industrial Park,
Hukou, Hsinchu,
Taiwan, R.O.C. 30352
Tel: +886-3-6006899
Fax: +886-3-5972970

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MerryIoT Hub User Manual

Revision History

Revision	Date	Description	Author
.001	May 3 rd , 2022	First release	Demy

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Chapter 1 – Introduction

Purpose and Scope

The purpose of this document is to describe the main functions, user manual, supported features, and system architecture of the WLRRTES-106 MerryIoT Hub based on the latest LoRaWAN specification.

Product Design

The dimension of WLRRTES-106 MerryIoT Hub is with the dimension of 116 x 91 x 27 mm, and with one LAN port, one Micro-USB port for 5V DC/2A power input, four LED indicators, and one reset button.



Definitions, Acronyms, and Abbreviations

Item	Description
LPWAN	Low-Power Wide-Area Network
LoRaWAN™	LoRaWAN™ is a Low Power Wide Area Network (LPWAN) specification intended for wireless battery operated Things in a regional, national or global network.
ABP	Activation by Personalization
OTAA	Over-The-Air Activation
TBD	To Be Defined

Reference

Document	Author
LoRaWAN Specification v1.0.3	LoRa Alliance
RP002-1.0.1 LoRaWAN Regional Parameters	LoRa Alliance

Chapter 2 – Hardware Details

LED Indicators

LED sequence: Power(System), WAN, WiFi, LoRa

One Orange, Three Green

Solid LED is for static status, blanking means the system is upgrading or active devices linked to the corresponding port

	Solid On	Blinking	Off
Power System(Orange)	Power ON	Booting (ignore bootload er)	Power Off
WAN(Blue)	Ethernet Plug and got IP Addr	Connecting	Unplug
Wireless(Blue)	WiFi Station Mode and go t IP Addr	Connecting	Wireless Disable
LoRa(Blue)	LoRa is work	Connecting	LoRa is not work

Table 1 LED Behaviors

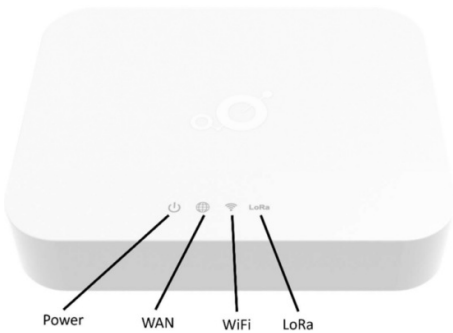


Figure 1 -LED indicators

I/O Ports

Port	Count	Description
RJ45	1	WAN port of the device
Reset	1	Reset to default (5 seconds to reset settings to factory default)
Micro USB	1	Power input via USB adaptor(5VDC/2A)

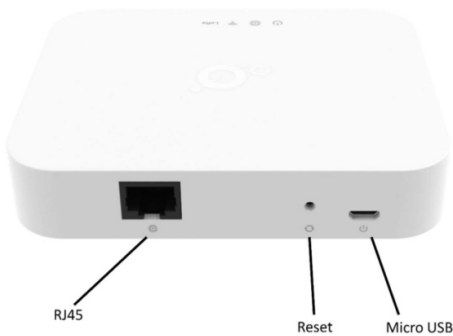


Figure 2 – IO Ports

Back Label

The marking information is located at the bottom of the apparatus.

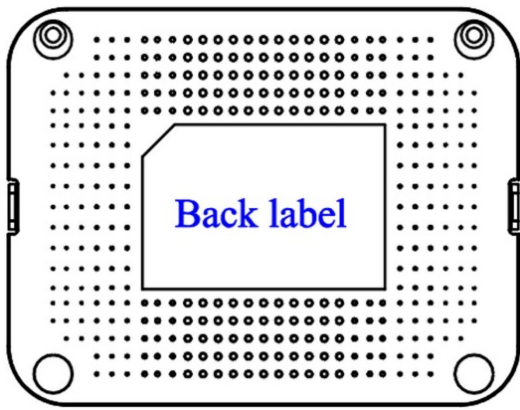


Figure 3 – Back Label

Package Label

No.	Item	Description
1	Product BOX	Brown Box
2	Labeling	Model/ MAC/ Serial Number/ Type Approval

Package Content

No.	Description	Quantity
1	MerryIoT Hub	1
2	Power adapter (100-240VAC 50/60Hz to 5VDC/2A)	1
3	Ethernet Cable 1 meter (UTP)	1

Chapter 3 – User Manual

3.1 Connect MerryIoT Hub

You can connect to the gateway via WiFi interface which the SSID and password are printed on the back label by default.

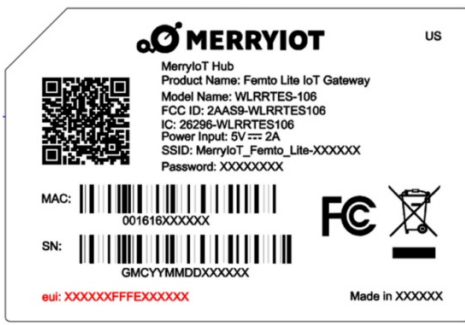


Figure 4 – Back Label

The rule of gateway SSID is MerryIoT_Femto_Lite-xxxxxx where the last digits are the last 6 digits of the MAC address

The PC will fetch the IP address of range 192.168.4.x except 192.168.4.1 assigned by the AP.

3.2 MerryIoT Hub Setting

Open the web browser(ex: Chrome) after connecting to the gateway via IP address “192.168.4.1”

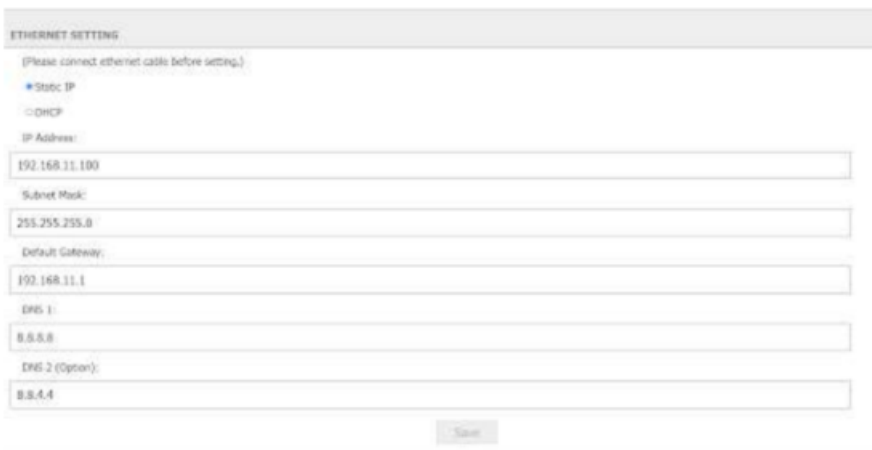


Figure 5 – WEB UI-1



Figure 6 – WEB UI-2

Now you can configure the gateway through the WEB UI.

3.3 SET WAN

The gateway support either “Ethernet” or “Wi-Fi” connection as the internet backhaul.



Figure 7 – WAN connection

STEP 3.3.1 Ethernet Setting

Configure the IP address of WAN.[Static IP/DHCP client]

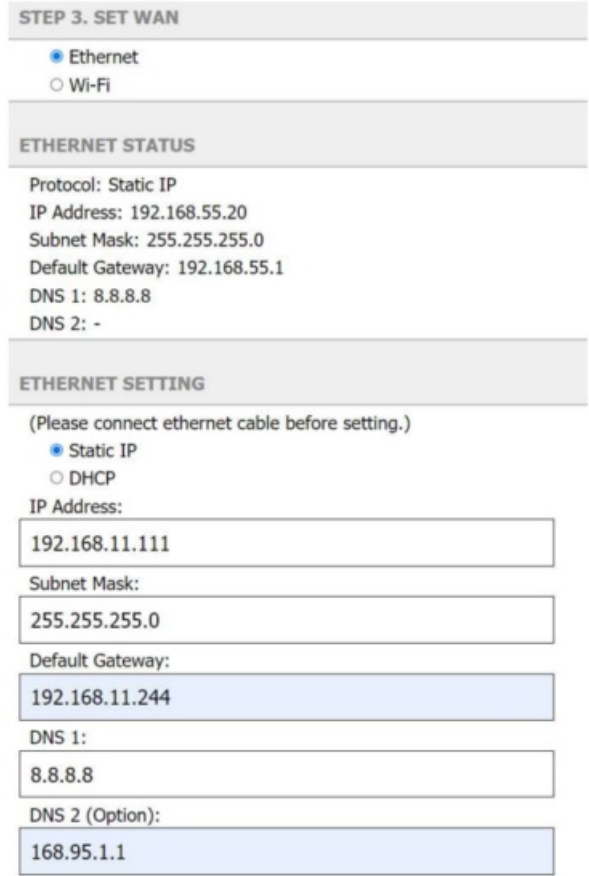



Figure 8 – WAN connection

ETHERNET STATUS – The information of IP address/Subnet Mask/Gateway/DNS.

ETHERNET SETTING – Configure the IP address of WAN.[Static IP/DHCP client]

Static IP – Setup the IP address/Subnet Mask/Default Gateway/DNS of the static IP.

	<p>Contact the network administrator for the static IP address information.</p>
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DHCP – The IP address/Subnet Mask/Default Gateway/DNS will be assigned by the DHCP server.

ETHERNET SETTING

(Please connect ethernet cable before setting.)


Static IP

DHCP

Figure 9 – DHCP client

STEP 3.3.2 Wi-Fi

Select “Wi-Fi” to be the internet backhaul connection.

	<p>The gateway WiFi interface is the Access Point by default which SSID is “MerryIoT_Femto_Lite-XXXXXX” printed on the back label. The administrator can only access the WEB UI through the Access Point mode to configure the gateway. The gateway will be the WiFi client and will not be able to access the WEB UI after enabling the WiFi interface as the internet backhaul connection.</p>
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STEP 3. SET WAN

Ethernet

Wi-Fi

MANUAL CONNECT

ADD (HIDDEN) SSID

OR CHOOSE A NETWORK...















garyhome	 
SSAK3	 
ALHN-8B78	 
HITRON-C150	 
Eric	 
dlink-E4DC	 
YT-VLC-2G	 

Figure 10 – Wi-Fi connection

MANUAL CONNECT – Specify the remote AP SSID and enter the password if necessary.

Click “**Join**” to accept or “**Cancel**” to abort.



Figure 11 – Wi-Fi manual connection

The gateway will scan the nearby access point automatically. Just click the SSID for the WiFi connection.

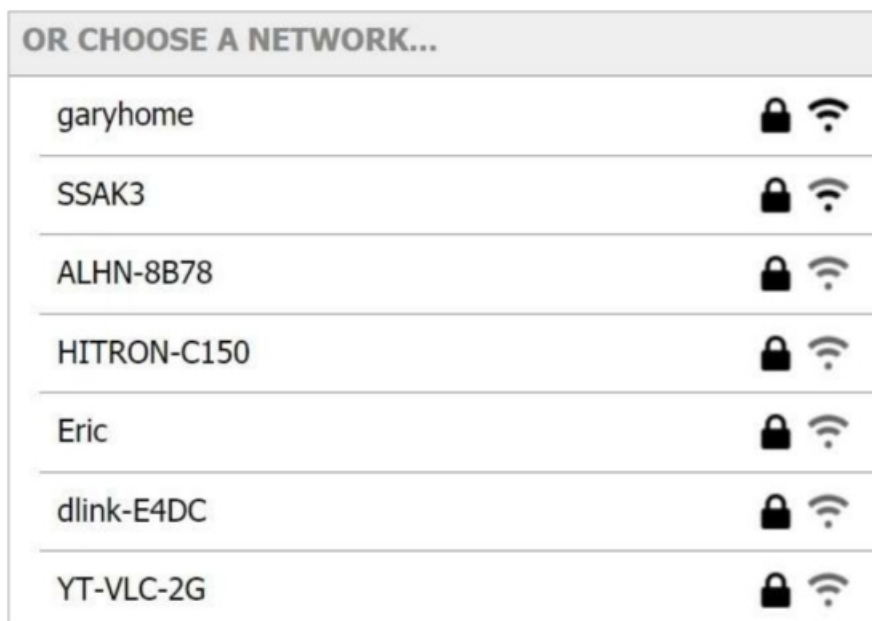


Figure 12 – Wi-Fi manual connection

Enter a WiFi password if it is necessary for the connection.



Figure 13 – Wi-Fi password

Click “**Join**” to accept or “**Cancel**” to abort.

Chapter 4 – Regulatory

Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

IMPORTANT NOTE:

Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Country Code selection feature to be disabled for products marketed to the US/CANADA

Operation of this device is restricted to indoor use only

Industry Canada statement:


This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

- (1) This device may not cause interference
- (2) This device must accept any interference, including interference that may cause undesired operation of the device

Radiation Exposure Statement:

This equipment complies with Canada radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Documents / Resources

 <p>MerryIoT Hub User Manual</p>	<p>BROWAN WLRGFM-100 MerryIoT Hub IoT Gateway [pdf] User Manual WLRGFM-100, MerryIoT Hub IoT Gateway</p>
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BROWAN WLRGFM-100 Femto Lite IoT Gateway Introduction Purpose and Scope The purpose of this document is to describe...



[BROWAN DW10 MerryIoT Open/Close Sensor User Manual](#)

BROWAN DW10 MerryIoT Open/Close Sensor Description The MerryIoT Open/Close sensor utilizes LoRaWAN connectivity to communicate the proximity or...