

Parameters

Electrical Parameters:

Working power	12-30VDC
Communication	RJ45,PieroNet,RF
Wireless transmission power	+10dbm
Wireless sensitivity	-90dbm
Indoor communication distance	<=30m (barrier free)
Wireless rem. signal receiving	RF433M
RSSI	>-80dbm
Factory frequency	Band, PSK (Suggestion: your setting should not be same as the factory setting.)
Working mode	Mesh mode, bridge mode
PieroNet Terminal	Wago 252,0.75-0.85mm diameter single core

Frequency allocation:

(China) WPAN	780MHz-786MHz
(Europe) SRD	864MHz-870MHz
(North America) ISM	904MHz-928MHz

Environmental Conditions:

Working temperature	-5°-45°C
Working relative humidity	Up to 90%
Storage temperature	-20°-+60°C
Storage relative humidity	Up to 93%

Approved:

CE, RoHS

Product Information:

Dimension	107×99.5×27mm
Net weight	212g
Housing material	ABS
Installation	Desk or wall mounted
Protection rating	IP20

PieroNet Cable Guide

CAT5/CAT5E	PieroNet
Brown / Orange	24V DC
Brown whit / Orange white	COM
Blue white / Green white	DATA-
Blue / Green	DATA+

Installation Steps

- Try to install to the barrier free position.
- Connect to PieroNet cable.
- Connect to RJ45
- Connect to DC24V power supply (if you have connected with PieroNet cable, no need to connect it)

Overview



W-GATE1 is a gateway based on IEEE802.15.4 standard MESH technology. Mesh Wireless Gateway has three communication interfaces: RJ45, PieroNet, RF, which can interconnect different media platforms (RS485, Ethernet, RF) of Piero intelligent devices .

At the same time, this device can also be configured as transparent transmission (bridge) mode. RS485 and Ethernet data in multiple gateways can be transmitted from RF, which effectively extends the communication distance. In the inconvenient of layout application environment, subnets can interconnect with wireless (RF).

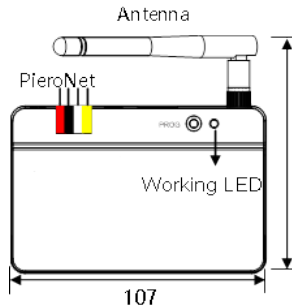
Functions

- Can be configured as Mesh mode.
- Can be configured as Bridge (transparent transmission) mode.
- The wireless data is encryption transmission.

Important Notes

- Check the PieroNet connection, avoid any mistakes
- In MESH mode, different RF channels must be different for each gateway, each gateway manages a wireless network with same SubNet ID. In Bridge mode, RF channel must be the same as each gateway.
- In Mesh mode, subnet ID of Gateway in RF port must be the same as RF devices which is managed by the gateway, and port ID is unique in RS485 port
- Two or more devices Ethernet (RJ45) can not be connected with RS485 port , otherwise loop connection will block communication
- Must select free RF frequency for different countries, user can set new wireless transmission password before installation.
- Reliable transmission distance is 30m, obstacles will reduce the transmission distance, the distance will decrease 20m if the wall stops it. So it is better to install Mesh wireless devices in empty place and forbid to install near large area of metal objects. To ensure good communication quality, it is suggested not to install this device in electric box. If you have to, please add an external antenna to the device.
- Support 433M wireless connection, can work in conjunction with Piero remote controller.

Dimensions and Wiring



PROG: programming button

Pressing it for 3 times continuously. Red LED gateway will be switched to set channel for Parameter settings, user can program wireless devices by Piero-PieroNet Pro Setup Tool.

99.5 Long press for 3 seconds to change ID by Piero-PieroNet Pro Setup Tool,

Long press for 10 seconds to default factory IP(192.168.10.250)

Antenna: Receives and transmits wireless signal.

Working LED: Green LED flashes during normal operation and last for seconds each time.

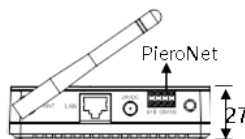
LED Indicator:

Red LED flashes quickly when it is programming.

Green LED flashes when the network jams.

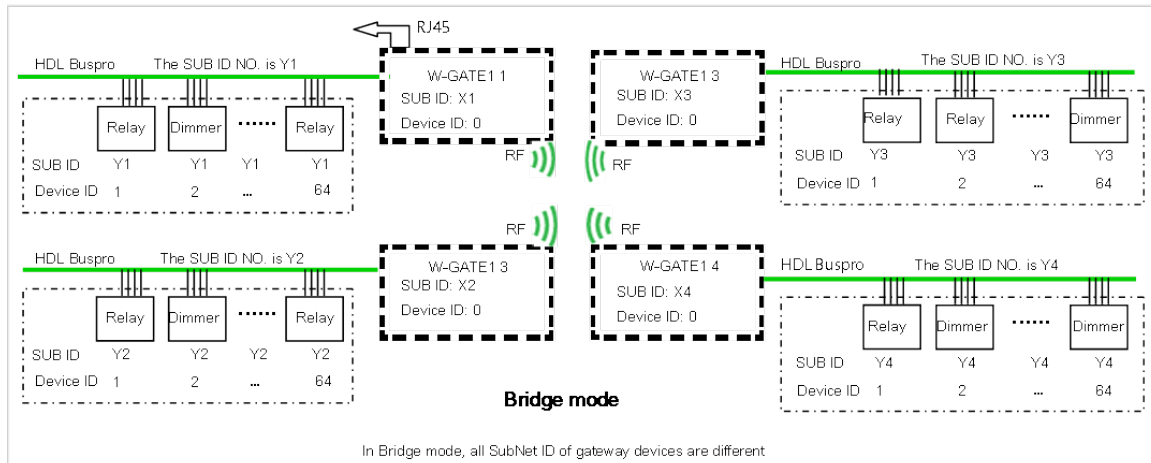
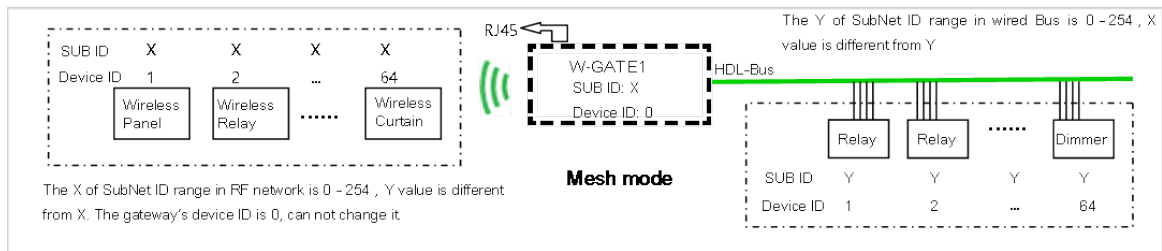
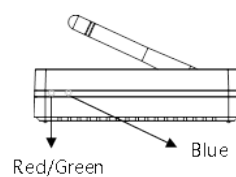
Blue LED flashes when it receives or transmits wireless signal.

When the red and blue LED are on, the device will be reset to factory setting.



24VDC: Power supply, if the device connects to the PieroNet, it need not connect to DC power

RJ45: Ethernet port RJ45



Safety Precautions

- Do not make wrong connection on PieroNet interface, it will damage the PieroNet interface of this module.
- Never let liquids get into the module, it will damage this device.
- Do not get AC240V voltage into PieroNet wire , it will damage all devices in the system.
- Ensure good ventilation.

Package Contents

- W-GATE1, Datasheet x1,