



WLRI-G11A/WLRI-G11AH



Wireless Multi-technology smart IoT gateway with external antenna

This intelligent smart gateway is the core of the entire wireless smart IoT system, a Multi-technology combination of Cloud, WiFi, LoRa, LAN, and 4 G connectivity can be used in a wide variety of applications. External antenna enhances the range, and HTTPS secure connection enables this product to be used in any network that requires high-security IoT and Android APP are now available to add devices easily to the gateway and create linkage for automation.

Features:

- Smart functions and control
- External suction cup antenna
- Support LoRa wireless network
- Increased interference immunity
- Encrypt-RF™ Security
- Support Gateway mode
- Two RJ-45
- LoRaWAN™ Technology
- Connects up to 100 wireless devices
- Optional HTTPS connectivity



Applications:

- Commercial/Residential monitoring
- Condominium and apartment buildings
- Frenchize stores and multi-location installation
- Golf courses and open field areas
- Smart logistics
- Smart meter reading
- Smart transportation
- Multi-site management and notification

Schematic Diagram:



Technical Specifications

Indicator Description		
Indicator	Status	Description
Power	On	The device is powered on
	Off	The device is not powered on
LAN	On	Connection status
	Off	Not connected
	Flash	Data transmission
WAN	On	Connection status
	Off	Not connected
	Flash	Data transmission
WiFi	On	WiFi on
	Off	WiFi off
	Flash	Data transmission
WPS	On	WPS builds a connection
	Off	Turn off WPS function
	Flash	Turn on the WPS function

Frequency		
	LoRa	WiFi
Frequency Bandwidth	410-525MHz 862-1020MHz (User can select the desired frequency band)	2.4 to 2.4835 GHz
Communication Channel	(Users can choose according to their needs)	11, 13 or 14 Ch1-2412MHz Ch2-2417MHz Ch3-2422MHz Ch1 4-2477MHz
Bandwidth	125k Hz	20/40 MHz
Antenna Type	External antenna	Built-in PCB antenna
TX Power	19dBm±1dBm (maximum, can be set according to requirements)	18.5 dBm (maximum, can be set according to requirements)
Communication Distance	Up to 500m/0.310miles, the actual transmission distance depends on the environment*	250 meters/820ft (actually depending on the specific communication conditions)
Rx Sensitivity	-136dBm (LoRa Spreading Factor=12, Bit Rate=293bps) -121dBm (FSK, Frequency deviation=5kHz, Bit Rate=1.2kbps)	- 75.5 dBm
Data Transfer Rate	0.3kbps ~ 50kbps (can be set according to requirements)	> 120Mbps
Modulation	LoRa/FSK	DSSS

Button Description

WPS button	Press to enable the WPS function
Reset button	Press to restart the device. Release after 5 seconds; the device resets and restarts

Electric

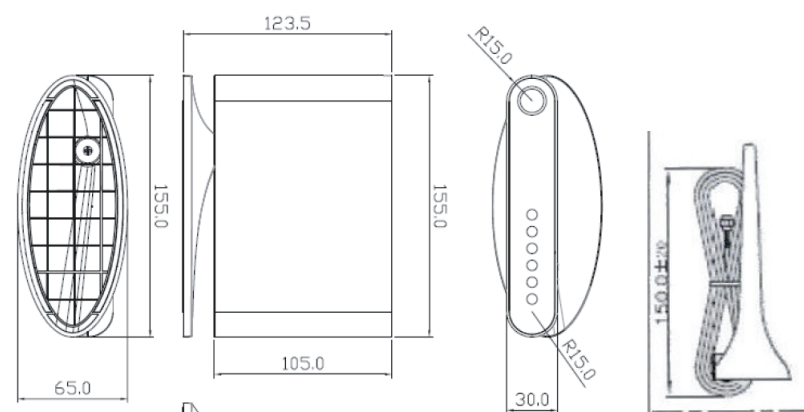
Working power	Input: 100 ~ 240V AC / Output:12V / 1.5A DC
Power consumption	2.2W (28mA @230V 50Hz) (typical)

Physical

Dimensions	123.5mm x 155mm x 65mm / 4.88" x 0.54" x 2.56"
Shell Material	PC510
Operating Temperature	-10°C ~ 50°C / 14°F ~ 122°F
Storage Temperature	-20°C ~ 60°C / -4°F ~ 140°F
Working Humidity	0 ~ 95%RH
Storage Humidity	0 ~ 95%RH

Hardware Description

Main Processor	MT7620A
Flash	32MB
DDR2	128MB
LoRa	R100 (SX1276)
Ethernet Port	Two RJ45 ports (LAN/WAN)
LED Indicator	Power / LAN / WAN / Wifi / Cloud / WPS / LoRa
Adaption Port	UART 4pin pin header
Reply Button	Tact Switch
Power Adapter	Input: 100 ~ 240V AC Output: 12V / 1.5A DC



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CANADA:

351 Ferrier Street, Unit 5
Markham, ON L3R 5Z2
Toll Free: 1-866-843-6865
Tel: 416-410-6865

USA:

171 Cooper Ave. Suite 110
Tonawanda, NY 14150 USA
Toll Free: 1-866-843-6865
Local: 1-716-877-7277

UAE:

PO Box No 126312
Office Suite 703, Oxford Towers
Business Bay, Dubai, UAE
Tel: + 971 4 2767117

Rev. Dec., 2021

www.watchnetiot.com
info@watchnetiot.com