

Product Brief

Model: TLG2901 Series

Ver.1.6

High Capacity Gateway



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1. Overview

Kiwitec TLG2901 series are hybrid LoRa Gateways which can provide the LoRa Concentrator to receive all packets with different spreading factors at fixed frequencies. The Packet Forwarder can redirect packets to the Internet, and support Machine-to-Machine protocol MQTT for connecting Internet of Things. You can access quickly TLG2901 series through our Web Portal; it also supplies online scripting LoRaScript and Node-RED for customizing data processing. You can use modern browsers such as Chrome and Firefox to manage TLG2901 series to setup concentrator channel, packet forwarding, MQTT broker, and network configuration and customize your plugins for designated purpose. The followings are TLG2901 series' software and hardware specification and its front view and right side view.

2. Product Features

1. Long range transmission, could be almost 10Km (depends on the interference in the air)
2. Frequency range: 470MHz/868MHz/920MHz for different regions.
3. High sensitivity: -137dBm
4. RF power: 100mW
5. port 10/100Mbps Fast Ethernet
6. TCP Server/Client, UDP and Tunneling modes supported
7. MQTT protocol
8. Configurable via Web Browser
9. Remote firmware upgrade
10. JavaScript programs plug-in by customers for special applications (customization)
11. Node-Red is available to use

3. Application

1. Automation and safety alarm in the community.
2. Various automated smart meters, such as water meter, gas meter and electricity meter.
3. Long range communication data collection and integration.
4. Outdoor information monitoring and collection, such as temperature, humidity and air quality information.
5. Electricity facilities measurement and management, such as smart street lighting.
6. Agriculture and animal husbandry monitoring and management.

4. Product Specifications

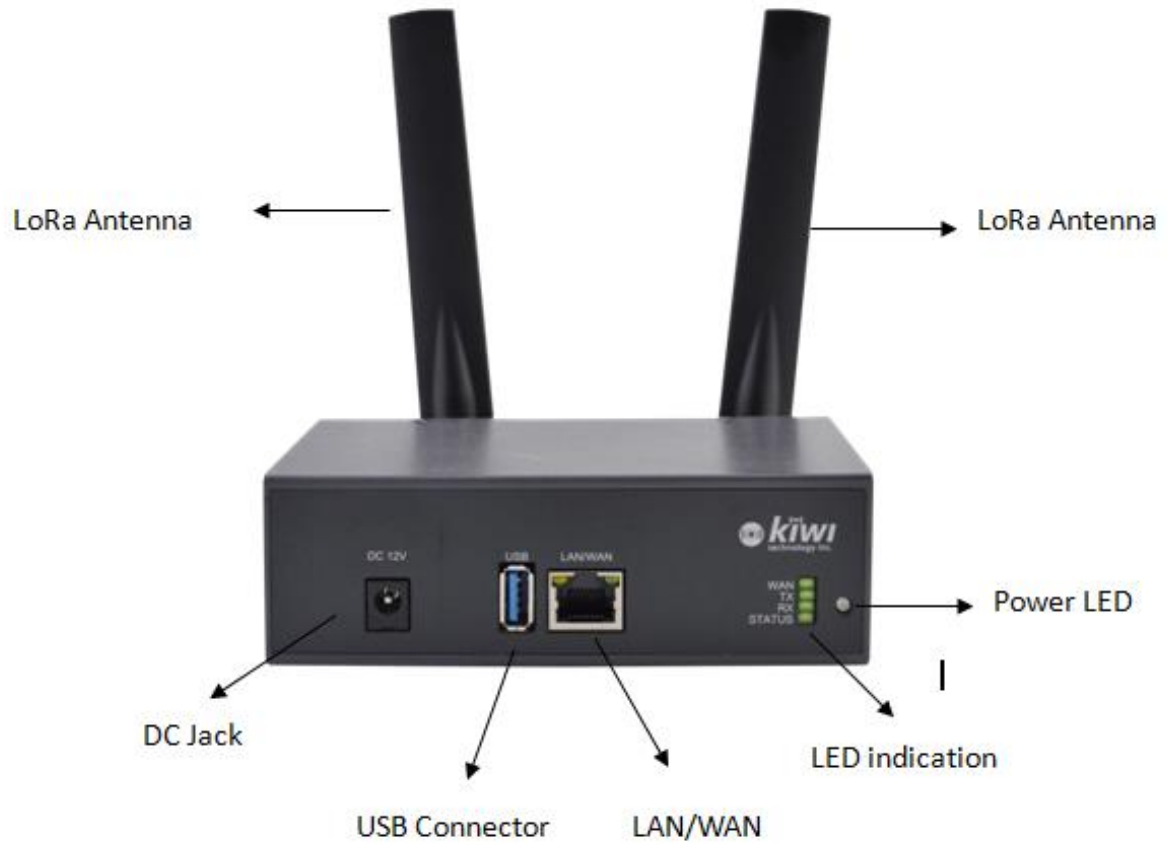
SoC	TI AM3352 (Cortex A8)
Voltage	12V 2A
Operating System	Linux with kernel 4.1.6
Flash	256Mbyte
Storage	512Mbyte
RF Interface	
Modulation	LoRa
Transceiver	Semtech SX1301
Frequency Range	863~870 (EU) / 920~928 (USA) / 922~928 (JPN) / 470~490(China)/ 920~925(TWN) / 923~925 (Indonesia)
Data rate	0.292~21.875Kbps
Sensitivity	-137dBm
RF output Power	13dBm(JPN)/14dBm(EU)/17dBm(China)/20dBm(USA,TWN).
Network Communication	
Ethernet	10/100Mbps fast Ethernet
M2M protocol	MQTT
Packet Forwarder	Compatible with ANNWS.01.2.1.W.SYS Gateway to Server Interface
Network Interface	Support DHCP, Static IP and DHCP Server
Administration Portal	Support Chrome and Firefox
ANT impedance	For LoRa: 50ohm
Dimension	134X85X43 (mm)
Operation Temp.	0~40°C
Storage Temp.	-20~80°C

5. Model List

We offered a completed model list for your various applications.

Model	Description
TLG2901B-NC	Indoor Gateway, 470~490, 8CH, LAN+LBT, China
TLG2901B-NE	Indoor Gateway, 863~870, 8CH, LAN+LBT, EU
TLG2901B-ND	Indoor Gateway, 865~867, 8CH, LAN+LBT, India
TLG2901B-NU	Indoor Gateway, 902~928, 8CH, LAN+LBT, USA
TLG2901B-NS	Indoor Gateway, 920~925, 8CH, LAN+LBT, Singapore
TLG2901B-NT	Indoor Gateway, 920~925, 8CH, LAN+LBT, Taiwan
TLG2901B-NJ	Indoor Gateway, 920~928, 8CH, LAN+LBT, JP
TLG2901B-NI	Indoor Gateway, 923~925, 8CH, LAN+LBT, Indonesia
TLG2901B-NL	Indoor Gateway, 920~925, 8CH, LAN+LBT, Thailand
TLG2901B-NA	Indoor Gateway, 915~928, 8CH, LAN+LBT, AUS
TLG2901B-NCs	Indoor Gateway, Built-in Server, 470~490, 8CH, LAN+LBT, China
TLG2901B-NEs	Indoor Gateway, Built-in Server, 863~870, 8CH, LAN+LBT, EU
TLG2901B-NDs	Indoor Gateway, Built-in Server, 865~867, 8CH, LAN+LBT, India
TLG2901B-NUs	Indoor Gateway, Built-in Server, 902~928, 8CH, LAN+LBT, USA
TLG2901B-NSs	Indoor Gateway, Built-in Server, 920~925, 8CH, LAN+LBT, Singapore
TLG2901B-NTs	Indoor Gateway, Built-in Server, 920~925, 8CH, LAN+LBT, Taiwan
TLG2901B-NJs	Indoor Gateway, Built-in Server, 920~928, 8CH, LAN+LBT, JP
TLG2901B-NIs	Indoor Gateway, Built-in Server, 923~925, 8CH, LAN+LBT, Indonesia
TLG2901B-NLs	Indoor Gateway, Built-in Server, 920~925, 8CH, LAN+LBT, Thailand
TLG2901B-NAs	Indoor Gateway, Built-in Server, 915~928, 8CH, LAN+LBT, AUS

6. Indoor Gateway Outlook



7. Distance Measurement in city

