

Product Brief

Model: TLG8411V1

Ver.1.3

16CH-Indoor-Gateway with LoRa®



1. Description

TLG8411V1 is a high performance IoT gateway that adopt LoRaWAN® technology. LoRaWAN® is a Low Power Wide Area Network (LPWAN), it uses ISM band and Internet of Things (IoT) applications. TLG8411V1 is a TI AM Cortex A8 based platform and design for indoor wireless transmission applications, i.e. smart factory and warehouse management, smart mall, hospital and health center management. Channel access with Listen-before-talk (LBT). TLG8411V1 provide LTE 4G and Ethernet to connect the cloud server.

2. Features

- Long-range transmission could be almost 10Km (it depends on the interference in the air)
- LoRa frequency range: 920~928MHz
- LoRa power: 13dBm
- One port 10/100Mbps Fast Ethernet
- MQTT protocol
- Manageable via web browser
- Remote firmware upgrade
- JavaScript programs plug-in by customers for special applications (customization)
- Node-Red is available to use

3. Applications

- Smart city: smart campus, smart meter, smart parking and smart traffic monitoring
- Smart agriculture and animal husbandry
- Smart Industry: smart warehouse, smart transportation
- Smart sensor applications

4. Product Specifications

CORE	
MODEL NAME	TLG8411V1
SOC	TI AM3352 (Cortex A8)
OPERATING SYSTEM	Linux v4.1.6
FLASH	256 MB (NAND Type)
MEMORY	512 MB (DDRIII)
STORAGE	SD 2.0, up to 32GB (SDHC)
LoRa CHIP	Semtech SX1301
NETWORK COMMUNICATION	
LoRa FREQUENCY RANGE	920.6~928MHz for JPN
LoRa DATA RATA	0.292~21.875Kbps
LoRa SENSITIVITY	-137dBm
LoRa ANTENNA	2dBi
LTE MODULE	Quectel EC25 series, default for JPN LTE FDD: B1/B3/B8/B18/B19/B26 LTE TDD: B41 WCDMA: B1/B6/B8/B19
WIRELESS TRANSMISSION	WiFi 2.4GHz (802.11b/g/n)
INTERFACE	DC12V adapter power input x1 RJ45 port x1 Nano SIM Card socket x1 Micro SD socket x1 USB 2.0 type A x1 Status indicator LED set x1 Power indicator LED x1 Factory reset button x1 Hardware reset button x1
I/O	
POWER INPUT	12V/2A DC adapter
MECHANISM	
DIMENSION (MM)	206 x 167 x 39mm
ENVIRONMENT	
OPERATION TEMPERATURE	-20 ~ 65 °C

STORAGE TEMPERATURE	-40 ~ 85°C
CERTIFICATE	TELEC, VCCI
IP RATING	IP52

5. LED and I/O Description

5.1. I/O Description

- DC12V adapter power input x1
- RJ45 port x1
- Nano SIM Card socket x1
- Micro SD socket x1
- USB 2.0 type A x1
- Status indicator LED set x1
- Power indicator LED x1
- Factory reset button x1
- Hardware reset button x1