Gemtek
Wireless Broadband Anywhere

Features of IDU (indoor uint) Pico Gateway

- 1 WAN port(10/100) + 2 LAN ports(10/100)
- 5G/2.4G dual band wireless 802.11 b/g/n/ac
- Various internet connection: Ethernet, Wireless bridge, 3G/4G dongle
- Support repeater mode for last mile coverage
- Support LoRaWAN protocol
- Cloud Service for Gateway health monitor and control
- Web UI for Router
- Support OTA and USB upgrade
- Support ADR
- Support Class A/B/C End-devices

This Internet of Things (IoT) Access Point/Gateway is specifically designed for wide area smart grid applications. Applications include, but not limited to automatic meter reading, monitoring fault indicators, monitoring street lights, etc. Typical deployment is using star network configuration similar to mobile network base station. Because of its long range and many device capabilities, it is a much more cost effective way for service providers to deploy this for sensor networks than to deploy a GPRS network for sensor network applications.
This gateway is Pico type and very suitable for small business or private area use case like parking space, Exhibition Center or campus etc.

Specification

Production Name	GIoT Lora IDU AP	WiFi	802.11 b/g/n/ac 2.4G/5G
Frequency Band	WiFi 2412 ~ 2472MHz / 5180 ~ 5320MHz LoRa 902 ~ 928MHz ISM (SKU-US) LoRa 862 ~ 870MHz ISM (SKU-EU)	Number of Channels (LoRa)	Configurable 16 channels (SKU-US) Configurable 8 channels (SKU-EU)
Chipset solution	MT7620A/MT7612E	LoRa solution	Semtech SX-1301 with SX-1257
Memory/Flash	128 MB/128MB	Operating Voltage	DC 12V/2A
Modulation	Base on IEEE 802.15.4g	Operating Temperature	0ºC ~ 40ºC
Transmit Power (LoRa)	Up to 0.5W	Receive Sensitivity (LoRa)	-142 dBm
Dimensions	L:195 x W:165 x H:35mm	LED indicator	4 LEDI/O interface
Antenna Type	External Antennas design (Gain value: 0 dB)	I/O interface	1xWAN, 2xLAN, Reset button, USB2.0, DC jack in
Certification	FCC, NCC	Security	AES 128

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Features of IoT AP/Gateway for Smart Grid

- Long Range - Over 15 kilometers radius
- 157 db link budget
- Thousands devices (up to million) depending on data model
- AP can be configured to work in repeater mode for last mile coverage
- Cloud service to support easy deployment
- Cost effective for providing full redundancy coverage

This Internet of Things (IoT) Access Point/Gateway is specifically designed for wide area smart city applications. Applications include, but not limited to automatic meter reading, monitoring fault indicators, monitoring street lights, etc. Typical deployment is using star network configuration similar to mobile network base station. Because of its long range and many device capabilities, it is a much more cost effective way for service providers to deploy this for sensor networks than to deploy a GPRS network for sensor network applications. Typical wireless sensor network has difficulty to achieve better than 95% coverage because of wireless blind spots near the edge of the coverage. This product can be configured as last mile repeater to solve this issue. It's a cost effective way to provide full redundancy coverage for the entire service area.

Specification

Wireless Frequency Band	902 ~ 928MHz ISM (SKU-US) 862 ~ 870MHz ISM (SKU-EU)	Number of Channels	Configurable 16 channels (SKU-US) Configurable 8 channels (SKU-EU)
Operating Voltage	48V ± 10% (POE adapter)	WAN protocol	LoRaWAN
Transmit Power	0.5W (up to 27 dBm)	Dimensions	L:230 x W:200 x H:68mm
Receive Sensitivity	-142 dBm	Outdoor Requirement	IP67
Antenna Type	N-Type connected antenna	Security	AES 128
Operating Temperature	-20ºC ~ 60ºC	Certification	NCC, FCC, SRRC