



Your Complete IoT Solution Partner

EG02 ESL Gateway

Designed for indoor



Multiple network available, WIFI/Ethernet/Cellular



Build-in PA/LNA, Max 350 meters coverage



Strong scanning ability > 50 packets per second



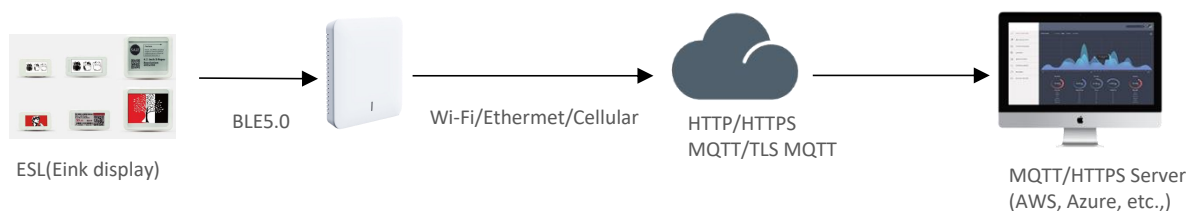
POE or 5V DC

PRODUCT OVERVIEW

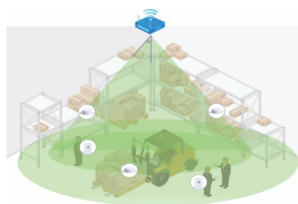


The EG02 ESL gateway is primarily used for communicating with devices that have BLE functionality, uploading device data to the cloud, or downloading cloud data to the device. The EG02 gateway supports cellular (3G/4G), WiFi, and Ethernet network connections. It is compatible with Bluetooth 5.0/4.2/4.1/4.0 and newer versions, including ESL, BLE Beacons.

HOW IT WORKS



USAGE SCENARIOS



Inventory & Asset Management

With KKM ESL devices, you can remotely update the ESL display and also accurately locate various indoor assets. Typical scenarios include: Inventory & Asset Management, Supermarket Customer Analysis & Management, Smart Healthcare, etc..



Smart Industry

With KKM's various Beacons/sensors, such as temperature and humidity, CO2, VOC, and light, you can monitor various items in the industry.

PRODUCT FEATURE

Ultra-long Bluetooth Coverage

- Built-in LNA/PA, it can maximum support 350 meters BLE coverage(1 Mbps mode).
- Power BLE filter features, such as duplicate detection filtering, BLE Channel filter, MAC Address filter, service UUID filter, regular expression and etc.

Multiple Connection

- Multiple networking options, such as Wi-Fi, Ethernet, and cellular(option), Also it GPS-based positioning.
- Support MQTT TLS, HTTPS, HTTPS with API Key. Supports cloud platforms such as AWS, Azure

Flexible Installation and Configuration

- Support POE and 5V power adapters.
- It can be installed with Screws or bracket.
- Users can configure the device through the mobile phone web browser. We also provide batch configuration scripts to improve efficiency.

Remote Operation & Maintenance

- Remote batch command to configure ESL.
- Remote monitoring, such as temperature, CPU load, abnormal power supply, etc.
- Remote configure gateways in batches and upgrade gateways software in batches.

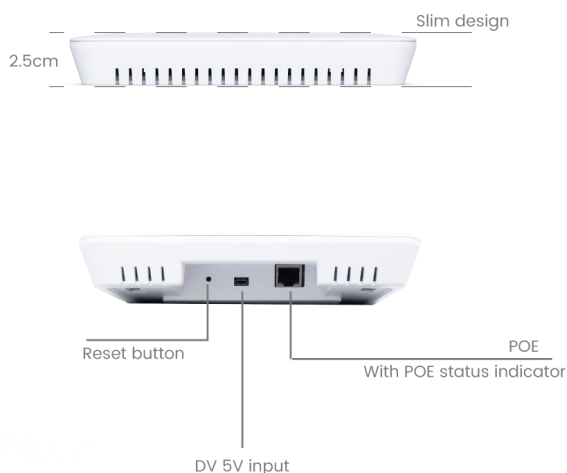
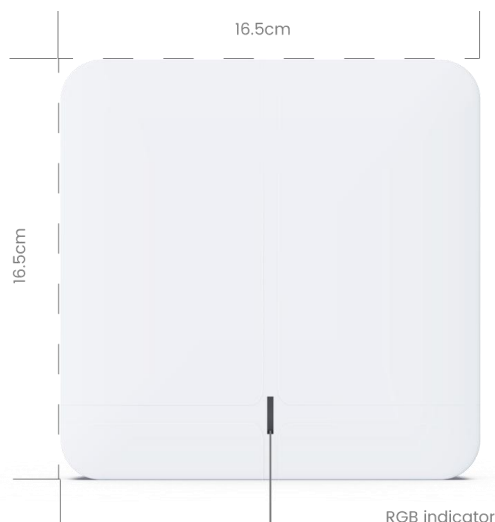
Robust Design

- Built-in watchdog, it will automatically reboot when the application fails or the network fails.
- Sensor data cache function
- Network diagnostics and logging capabilities.

Security

- EG02 supports E2E security protocol and HTTPS, MQTT TLS encryption protocol.
- Use AES/MD5 encryption algorithm between Gateway and ESL data transmission/communication

PRODUCT DETAILS



BASIC SPECIFICATIONS

Model	EG02	Power Supply	DC 5V/1A or 802.3af POE
MCU	MTK7628	Interface	<ul style="list-style-type: none"> • RJ45 port • DC 5V • SIM card slot
Size/Weight	165mm*165mm*25mm, 270g	Indicator	RGB LED indicator
Material	ABS	Work Humidity	≤65%RH
Waterproof	NA	Working Temperature	-30℃~+50℃

BLUETOOTH SPECIFICATIONS

Bluetooth Version	BLE4.0, BLE4.1, BLE4.2, BLE5.0, BLE5.1
Wireless Distance	BLE4.x/BLE5.0 @1 Mbps: up to 350 meter(in open area)
Scanning Ability	>50 packets per second
Transmitting Way	ETH RJ45, Wi-Fi, LTE(3G/4G)
RX Sensitivity	-108dBm @1Mbps, 0.1 %BER -115dBm @125kbps, 0.1 %BER
Transmit Power	19 dBm (Max)
Antenna Gain	3 dBi

WiFi SPECIFICATIONS

WiFi Protocol	IEEE 802.11b/g/n
WiFi Frequencies	2T2R 2412 MHz ~ 2484 MHz
Data Transfer Speed	IEEE 802.11n: Up to 300 Mbps IEEE 802.11g: Up to 54 Mbps IEEE 802.11b: Up to 11 Mbps
Transmit Power	IEEE 802.11n: 13 ~ 16 dBm IEEE 802.11g: 14 ~ 17 dBm IEEE 802.11b: 16 ~ 20 dBm

Receiving Sensitivity	HT40 MCS7 : -69dBm@10% PER(MCS7) HT20 MCS7 : -71dBm@10% PER(MCS7) 54M: -75dBm@10% PER 11M: -88dBm@ 8% PER
Wireless Encryption	WPA-PSK/WPA2-PSK, WPA-EAP/WPA2-EAP and TKIP
Modulate Mode	DSSS (DBPSK, DQPSK, CCK) OFDM (BPSK, QPSK, 16-QAM, 64-QAM)
Network Protocol	HTTP(SSL/TLS) MQTT(SSL/TLS)
Wireless Encryption	WPA-PSK/WPA2-PSK, WPA-EAP/WPA2-EAP and TKIP

Optional Features (LTE and GPS)

Optional LTE Model	EC25-E: Europe/Middle East/Africa/Korea/India EC25-AU: Australia/New Zealand/Taiwan/Latin America EC25-J: Japan EC25-AF: North America
LTE Band	Please contact our sales for details information.
Data Transfer Speed	LTE FDD: 150Mbps(DL)/50Mbps(UL) LTE TDD: 130Mbps(DL)/30Mbps(UL)
Output Power	Class 3 (23dBm±2dB) for LTE-FDD bands Class 3 (23dBm±2dB) for LTE-TDD bands
SIM Card	nano sim card
External GNSS	GPS / Glonass / Beidou positioning accuracy: 30 meters



LTE Module



External GNSS

DIAGNOSTICS

Gateway Enclosure LED

- Red LED rapid blinking: System reboot or hardware error(Flashes 3 times in 1 second)
- Red LED slow blinking: Fail to connect to network. (Flashes 1 times in 2 second)
- Green LED slow blinking: Network connection successfully

PRECAUTIONS

- If you are having trouble with the update process, you can use your computer to connect directly to the gateway's Ethernet port to perform a failed update.
- To ensure proper scanning of the gateway, install it in an open area as far away as possible from corners, metal objects and obstacles such as glass covers.
- If you need to configure EG02 gateway, please contact our sales for more information about EG02 configuration.

CERTIFICATIONS



* If you need specific information about the certificate, please contact the sales.

PACKAGING INFORMATION

Details	Inner Box (Battery is included)	Outer Carton (Battery is included)
Quantity	1pc/box	9pcs/carton
Net Weight		8KG
Gross Weight		8.5KG
Size		36*24*38cm

QUALITY ASSURANCE

We have achieved ISO 9001 quality system certification. Our products undergo rigorous testing, including PCB SMT tests (component tests, optical inspections, PCB signal value tests, high and low temperature tests, drop tests, etc.) and software tests (Bluetooth signal tests, power consumption tests, button tests, LED flashing tests, etc.).

Warranty Period: One year from the date of delivery (excluding batteries and other accessories).

DECLARATION

Statement of Rights

The contents of this manual belong to KKM Company Limited. Without the permission of KKM, no individual, organization, may modify, copy or use it for any commercial purpose.

The Company reserves the right to pursue legal liability for the use of illegal means to obtain, reproduce or use the information in this manual.

Disclaimer

KKM team is not responsible for products developed independently by users without checking the product manual, instructions for use or technical specifications. We reserve the right of final interpretation of the products, and are not responsible for any property or personal injury caused by improper operation.



KKM Company Limited



86-755-28370901



sales@kkmcn.com



www.kkmcn.com



6A-3CDE, Baoneng Science and Technology Industrial Park,
Long Hua district, Shenzhen, Guang Dong, China