

SKU: 217032

Product Link: <https://gaorfid.com/product/3g-4g-lte-wi-fi-ethernet-ble-ip67-outdoor-gateway/>

Product Name: 3G/4G/LTE/Wi-Fi/Ethernet BLE IP67 Outdoor Gateway – GAORFID

Overview: GAORFID SKU# 217032 IP67-rated robust Gateway operates at 2.45 GHz. 217032 is a Bluetooth Low Energy (BLE)- to-3G/4 G cellular/LTE, Wi-Fi, Ethernet, and PoE connectivity gateway or signal receiver. The 217032 gateway collects data from GAORFID's iBeacon, Eddystone, BLE sensors and any other BLE devices, and then sends to the local or remote cloud server by MQTT/HTTPS protocols over 3G/4G, Ethernet, Wi-Fi or PoE. It is easy to configure the 217032 gateways via a web/phone UI, and it supports remote configurations. Its robust design allows it to be used in an indoor environment.

Features:

Industrial Design

- Industrial-grade Qualcomm MCU and components can withstand harsh temperature environments (30 to 70 degrees Celsius), ensuring stable operation.
- The device features a thickened casing and an IP67 waterproof design.

Remote Operation & Maintenance

- Remote monitoring, such as temperature, CPU load, abnormal power supply, etc.
- Remote configure gateways in batches and upgrade gateways in batches.
- Remote batch command to configure Beacon.
- Remote access to the logs via cloud server

Security

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

- Supports disabling WiFi sharing
- Cloud API compatible with KKM ESP32 gateways

BLE Filter Function

- Power filter features, such as MAC address filter, service filter, etc.
- Supports limiting the maximum packet size, suitable for AWS and Azure.
- Supports duplicate detection and regular expression filtering.
- Supports scheduled scanning

600m Ultra-long Bluetooth Coverage

- Maximum support: 600 meters of coverage (125 kbps mode).
- 200 meters coverage (1 Mbps mode).
- BLE 5.0 Coded PHY, built-in LNA/PA; the maximum transmit power is 19 dBm.
- Supports JSON, BYTE, and JSON-RAW data formats

Software Update

- Remote update via HTTP and MQTT.
- Upload local files in the web portal. Download USB tool PC directly from the cloud via the web portal to the gateway Ethernet port for local failover updates

Technical Specifications:

Parameters	Specifications
MCU	Qualcomm QCA9531
Size	220 mm × 110 mm × 75 mm
Weight	350 g
Material	ABS/PC
Waterproof	IP67, designed for outdoor use
Power Supply	DC 9–12 V / 1 A or 802.3af PoE
Interface	RJ45 Port, DC 9–12 V Port, Nano SIM Card (optional)
Indicator	LED indicator

Working Humidity	5%–95% RH
Working Temperature	-30°C to +75°C

Bluetooth Specifications	
BLE Version	BLE 4.0, BLE 4.1, BLE 4.2, BLE 5.0, BLE 5.1
Wireless Distance	BLE 4.x/BLE 5.0 @ 1 Mbps: up to 200 m (open area)
Wireless Distance	BLE 5.0 PHY Coded @125 Kbps: up to 600 m (open area)
Scanning Ability	300 packets per second
Transmitting Way	ETH RJ45, Wi-Fi, LTE (3G/4G)
RX Sensitivity	-108 dBm @1 Mbps, 0.1% BER
RX Sensitivity	-115 dBm @125 Kbps, 0.1% BER
Transmit Power	18 dBm (Max)
Antenna Gain	3 dBi

Wi-Fi Specifications	
Wi-Fi Protocols	IEEE 802.11b/g/n
Wi-Fi Frequencies	2T2R, 2412 MHz–2484 MHz
Data Transfer Speed	IEEE 802.11n: Up to 300 Mbps
Data Transfer Speed	IEEE 802.11g: Up to 54 Mbps
Data Transfer Speed	IEEE 802.11b: Up to 11 Mbps
Transmit Power	IEEE 802.11n: 13–16 dBm
Transmit Power	IEEE 802.11g: 14–17 dBm
Transmit Power	IEEE 802.11b: 16–20 dBm
Receiving Sensitivity	HT40 MCS7: -69 dBm @10% PER (MCS7)
Receiving Sensitivity	HT20 MCS7: -71 dBm @10% PER (MCS7)
Receiving Sensitivity	54M: -75 dBm @10% PER
Receiving Sensitivity	11M: -88 dBm @8% PER
Modulate Mode	DSSS (DBPSK, DQPSK, CCK)
Modulate Mode	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
Optional LTE Model	EC25-AU: Australia/New Zealand/Taiwan/Latin America
Optional LTE Model	EC25-J: Japan
Optional LTE Model	EC25-AF: North America
LTE Band	Contact sales for detailed information
Data Transfer Speed	LTE FDD: 150 Mbps (DL) / 50 Mbps (UL)
Data Transfer Speed	LTE TDD: 130 Mbps (DL) / 30 Mbps (UL)

Output Power	Class 3 (23 dBm $\pm$ 2 dB) for LTE-FDD bands
Output Power	Class 3 (23 dBm $\pm$ 2 dB) for LTE-TDD bands
SIM Card	Nano SIM card
Built-in or External GNSS	GPS / GLONASS / BeiDou
Positioning Accuracy	30 meters

Gateway LED Indicator

Indicator	Status / Meaning
Gateway LED – Green	Always on: Network connection successfully
Gateway LED – Green	Slow blinking: Failed to connect to network; flashes 1 time in 2 seconds
Gateway LED – Green	Rapid blinking: System reboot or hardware error; flashes 3 times in 1 second
Ethernet Port LED – Green	System is powered on
Ethernet Port LED – Yellow	Blinking: Ethernet TX/RX data
LTE LED – Blue	Blinking: Working normally



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