

Device

Rinho ZERO IoT

Power and robustness in a compact design. This cost-effective device revolutionizes vehicle telemetry by merging advanced technologies into a solid and adaptable format. Enjoy complete and reliable control of your vehicles with the assurance of a durable and efficient system.



✉ Communication via **TCP/UDP**

✉ Communication **Bluetooth BLE** as a virtual port and connection of multiple accessories

♻ Multiple modes of **low consumption**

Technical Features

- 📶 Antennas **GSM** and **GPS** integrated
- 📁 Event engine with **196** configurable rules
- 📁 **2 AD Input**
- 📁 **2 DIGITAL Input**
- 📁 **1 DIGITAL Output**
- 📁 **1 independent ignition input**
- 📁 Event and alarm notification buffer
- 📁 Generation of predefined and configurable reports

BLE protocols

📁 iBeacon, Eddystone UID/TLM, Escort and Moko Smart

Main Functions

- ✓ 100% programmable device
- ✓ Real-time tracking
- ✓ Vehicle recovery
- ✓ Complete alarm system with local or remote
- ✓ Motorcycle vehicle tracking
- ✓ Fleet management
- ✓ Driver Management

Driving profiles and driver identifier

Supported Technologies

📶 **LTE & GSM**

📶 **WIFI** (Special Connectivity)

WiFi connectivity on our tracking device offers a unique advantage: the ability to collect data in remote areas or areas with weak cell signals.

📶 **FOTA** (Firmware Over-The-Air)

📶 **Country code detection** (MCC)

📶 **Accelerometer** triaxial 8G

Main Applications

- ✓ Real-time vehicle tracking
- ✓ Access control and driver management
- ✓ Asset tracking
- ✓ Environmental control
- ✓ Security

Technical Specifications

Processing and Configuration

Processor: ESP32 / 32 bits
Configuration protocol: TAIP
Configurable Rules (RL): 196
Configurable events: 256
Log Reports (DL): 17000
Buffer Report (BU): 2768

Cellular Connectivity

Cellular Module: Quectel EG915U-LA
Compatible technologies:
LTE Cat 1 - GSM/GPRS/EDGE
Supported LTE-FDD bands:
B2 / B3 / B4 / B5 / B7 / B8 / B28 / B66
Supported GSM bands:
850 / 900 / 1800 / 1900 MHz
Indoor Cellular Antenna: Yes
SIM 0: Yes
IP Destinations: 4
SMS Destinations: 5
FOTA Cellular / Wifi: Yes / Yes
UDP and TCP protocols: Yes
DNS domain resolution: Yes
Jamming detection (JMD): Yes

GPS and Positioning

GPS Module: Quectel LC86G
GPS, GLONASS, BDS, Galileo, QZSS
Internal GPS Antenna: Yes
GPS Status Indicator: 1 LED Bicolor

Power Supply and Consumption

Operating voltage: 9 to 90 VDC
Compatible with electric vehicles
Backup battery: Li-Ion battery 3.7 VDC 500mAh with BPM
Power consumption during operation: ~60 mA @12V / ~48 mA @24V
Current consumption under load: ~85 mA @12V / ~60 mA @24V
Power consumption in sleep mode: < 2 mA @12V
Power supply protection:
Built-in self-resetting fuse to protect against reverse polarity

Inputs, Outputs, and Sensors

GPIO Inputs/Outputs:
2 Digital Inputs
2 Analog Inputs
1 Ignition Input
1 Digital outputs
Triggers by Caller ID (CID): 10
Braking/acceleration triggers (DV): 8
Time/distance (TD) triggers: 32
Analog Range (AR) Triggers: 12
User triggers (UV): 32

Vehicle and Driver Management

Total / Partial Odometer: Yes / Yes
Ignition Pin (IGN): Yes
Main voltage sensor: Yes
Driver Management (ICL): 100

Communication Interfaces

Serial Port TR0 (USB): Yes
Bluetooth BLE connectivity: Yes
WiFi connectivity: Yes – 2.4 GHz (802.11b Rx)
Text buffers (XB): 8

Event Intelligence

Event engine: 196 rules
User variables (Volatile / Non-Volatile): 16 / 16
NT Accumulators (Volatile / Non-Volatile): 16 / 16
Waypoints(WP): 32
Polygonal regions (RG): 32
Speed thresholds (VL): 16

Physical and Environmental

Enclosure: High-impact ABS plastic, IP65
Dimensions:
98 mm x 32 mm x 21 mm
Weight: 120 g
Operating temperature:
-15 °C to +60 °C
Humidity: 90% at +60 °C
Accelerometer: Triaxial, 8G
Cellular Status Indicator: 1 LED Bicolor