

Device

Rinho SPIDER 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.



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
- ✉ Communication via **TCP/UDP**
- ✉ Communication Bluetooth LE as a virtual port
- ♻ Multiple modes of **low consumption**

Technical Features

- 📶 Antennas **GSM** and **GPS** integrated
- 📁 Event engine with **196** configurable rules
- 📁 **3 GPIO** selectable as needed (including analog inputs, digital inputs, digital outputs and more)
- 📁 Some of them can be used as 1-Wire for iButton keys or temperature sensors.
- 📁 1 independent ignition input
- 📁 Event and alarm notification buffer
- 📁 Generation of predefined and configurable reports
- 📁 Positioning mode for GPS signal loss
- 🚗 Reading and decoding information in real time from **ECU** of the vehicle

Integrated CANBUS Protocols

- 🚗 SAE J1939
- 🚗 OBDII
- 🚗 EBS
- 🚗 IESCAN

BLE protocols

- 📶 iBeacon, Eddystone UID/TLM, Escort and Moko Smart

Main Applications

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

Optional

- ⚡ RF433MHz Receiver Module

Technical Specifications

Processing and Configuration

Processor: ESP32 / 32 bits
Configuration protocol: TAIP
Configurable Rules (RL): 196
Log Reports (DL): 49152
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
SMA connector for external cellular antenna.: No
SIM 0: Yes
SIM 1: No
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
SMA connector for external GPS antenna.: No
GPS Status Indicator: 1 LED Bicolor

Power Supply and Consumption

Operating voltage: 8 to 38 VDC
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: ~210 mA @12V / ~170 mA @24V
Power consumption in sleep mode: < 2 mA @12V
Power supply protection:
Against polarity reversal

Inputs, Outputs, and Sensors

GPIO Inputs/Outputs:
4 Digital Inputs
3 Analog Inputs
1 Ignition Input
3 Digital Outputs
OneWire Port 0: Yes
Compatible temperature sensors: DS18S20, DS18B20
Compatible iButton keys: DS1990
Triggers by Caller ID (CID): 10
Braking/acceleration triggers (DV): 8
Time/distance (TD) triggers: 32
Analog Range (AR) Triggers: 12
User triggers (UV): 16

Vehicle and Driver Management

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

Communication Interfaces

CANBUS Port: Yes (CAN H and CAN L pins)
Serial Port TR0 (TTL 3V3): No
Bluetooth BLE connectivity: Yes
WIFI connectivity: Yes – 2.4 GHz (802.11b Rx)
RF Connectivity: Yes Optional - 433MHz
Supported CANBUS protocols:
OBDII, J1939, IESCAN
Text buffers (XB): 8

Event Intelligence

Event engine: 196 rules
User variables (Volatile / Non-Volatile): 32 / 32
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, IP30
Dimensions:
80 mm x 45 mm x 22 mm
Weight: 70 g
Operating temperature:
-15 °C to +60 °C
Humidity: 90% at +60 °C
Accelerometer: Triaxial, 8G
Cellular Status Indicator: 1 LED Bicolor
Audio: No