ES810-CM

1.General Description

ES810-CM is a 4G (Cat.M1 & NB-IoT) GPS Tracker for vehicle. It reports location information via TCP/UDP with configurable intervals. ES810-C4 has max 4 inputs which can be used to detect sensors and max 4 outputs to control fuel or the vehicle starter. It also has max 3 UARTs to connect an external device to transmit user data to a server.

2.Main Functions

- **Tracking:** It sends GPS (Location, speed) and sensors (if any) information to your application server with configurable report interval (moving or stationary).
- **Geofence:** It supports circle and polygon setting.
- **Backup Battery (optional):** With a backup battery (300mAh), the device sends a tamper message if the main power supply harness is disconnected.
- **Over Speed Limit:** Reports over-speed limit.
- **3-Axis Accelerometer:** With a built-in 3-axis accelerometer, the device can detect trip start/trip end, and to report harsh braking, harsh acceleration, and impact.
- **Storing Message:** The device stores up to hundreds of messages while there is no GSM signal.
- **Low Voltage Detection (optional):** Device switches to deep sleep mode if supply voltage drops below a threshold.
- **Power Saving Mode:** Device periodically wakes up and sleeps when vehicle engine is OFF.
- **Expand other peripherals:** Plenty of IOs, UARTs and AD to accomplish custom's requirement.
- **OTA (Over the Air):** The device's firmware can be upgraded via TCP.

3. Specification

Physical and Electrical

Dimensions: 90mm *55mm *18mm
Weight: 65g
Input voltage range: 6-42VDC
Power Consumption:
- Active mode: 32 mA @12VDC
- Sleep mode: 10 mA @12VDC

Operation temperature: -20℃ to +65℃
Storage temperature (Without battery):
-40℃ to +85℃
Built-in Cellular and GPS antenna
Module: BG96 from Quectel
Chipset Type: MDM9206 from Qualcomm

GPS specification

-162dBm Tracking Sensitivity
Accuracy (Open Sky): < 2.5m (CEP50)

Comprehensive IOs

Max 4 inputs and 4 outputs
Max 2 A/D inputs and 3 UARTs
2 LEDs for GPS and Cellular status

Cellular Communication

Cat.M1/Cat.NB1:
LTE FDD:B1/B2/B3/B4/B5/B8/B12/B13/B18/
B19/B20/B25/B26/B28
LTE TDD: B39 (only Cat.M1 support)
Output Power: 23dBm±2.7dBm
GSM:
GSM850/GSM900/DCS1800/PCS1900
Output Power:
GSM850/900: 33dBm±2dBm
DCS1800/PCS1900: 30dBm±2dBm
Protocol: HTTP/TCP/UDP/SMS