

# ES810-C4

## 1. General Description

ES810-C4 is a 4G (Cat.4) GPS Tracker for vehicle. It reports location information via TCP/UDP with configurable intervals. ES810 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: <10mA @12VDC

Operation temperature: -20°C to +65°C

Storage temperature (Without battery):  
-40°C to +85°C

Built-in Cellular and GPS antenna

Module: EC25 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

Dual Band:

ES810-C4 (V) LTE FDD: B4/B13

ES810-C4 (A) LTE FDD: B2/B4/B12

WCDMA: B2/B4/B5

ES810-C4 (AU)

LTE FDD: B1/B2/B3/B4/B5/B7/B8/B28

LTE TDD: B40 WCDMA: B1/B2/B5/B8

GSM: B2/B3/B5/B8

ES810-C4 (AUT) LTE FDD: B1/B3/B5/B7/B28

WCDMA: B1/B5

ES810-C4(E): LTE FDD: B1/B3/B5/B7/B8/B20

LTE TDD: B38/B40/B41

WCDMA: B1/B5/B8 GSM: B3/B8

Protocol: HTTP/TCP/UDP/SMS