ES431

1.General Description

ES431 is a 4G (Cat.1) waterproof GPS asset tracker. Carefully designed for long battery life, it can last 2 year under one report per day mode with 2500mAh battery. Embedded with magnets, it can easily attach to vehicle, trailer, container for asset tracking. ES431 will automatically switch to cell-ID based location reporting whenever GPS is not available.

2.Main Functions

- **Tracking:** It sends GPS (Location, speed) information to your application server with configurable report interval (moving or stationary).
- **Geofence:** It supports circle and polygon setting.
- **Moving Wakeup:** Device will automatically wakeup when it senses moving of the asset and power down itself when it is stationary.
- **Battery Low Warning:** When battery level is low, it will send low-battery alarm message.
- **Storing Message:** The device stores up to 50 messages if out of coverage and send the stored messages once the device regains coverage.
- **Flexible** B**attery** S**election**: Two kinds of choices: 1000mAh or 2500mAh.
- **Drop Alarm:** Using embedded light sensor to detect the drop/detach from the tracking object.
- **Cell-ID Based Location:** Device reports cell-ID based location information where GPS cannot be positioned.
- **OTA (Over the Air):** The device's configuration, setting and firmware can be remotely upgraded.
- **Waterproof Case:** IP65 waterproof.

3. Specification

Physical and Electrical

Dimensions: 80mm*50mm*23mm

Weight: <130g

Rechargeable Battery capacity:
   1000/2500 mAh

Power Consumption:
   -Active mode:< 78 mA @3.8VDC
   -Sleep mode:<4 mA @3.8VDC
   -Deep Sleep Mode:< 60 uA @3.8VDC

Operation temperature: -20℃ to 65℃

Storage temperature (Without battery):
-40℃ to 85℃

Charging mode: USB charging

Built-in Cellular and GPS antenna

Module: LongShang

GPS Specification

-162 dBm Tracking Sensitivity
Accuracy (Open Sky): <2 m (CEP50)

Cellular Communication

Cat.1:
LTE FDD:B1/B3/B5/B8
LTE TDD: B34/B38/B39/B40/B41
GPRS:
900/1800MHz
Protocol:TCP/IP/UDP/MQTT/FTP/HTTP(S)/
COAP/LWM2M