



# Positioning Universal FJ1000 SERIES LTE TRACKER

The FJ1000 Series is a portable LTE and GPS wireless modem which reports location information via the LTE cellular network with configurable intervals. It has an input which can be used to detect ignition, and an output which can be used to control a starter interrupt device.



## FJ1000L Basic

- **Modem & GPS Tracking:** Periodically sends GPS information (location, speed) to a server via the LTE (4G) cellular network.
- **Reports Trip Activity:** Ignition events (hardwired or virtual), interval reports while moving.
- **Reports Activity:** Reports Heartbeats, Cold Boot and Warm Boot events, status info, GPS Acquired.
- **Automotive Power:** 6-36V DC power supports automotive 12V and 24V systems.
- **4-Wire Primary Harness:** Includes power, ground, one input (ignition), and one output (Starter Interrupt Device).
- **SID (Starter Interrupt Device):** Output drives a starter interrupt relay. SID function includes Network Security to avoid stranding vehicles.
- **Message Storage:** Stores over 2,000 messages if out of coverage and sends the messages once the device regains coverage.
- **OTA (Over-The-Air):** Software and device/feature settings can be updated automatically using the PASS server.
- **Low Power Mode:** Device enters low power mode to conserve vehicle battery when the vehicle is not in use. The cellular connection is maintained in low power mode, and the GPS periodically updates satellite info to ensure quick resumption of tracking when a trip begins.

## FJ1000BZL Advanced

- **Backup Battery:** Backup battery permits tracking for a period when power is disconnected. Reports power connection/disconnection events.
- **Advanced Power Management:** Device can enter sleep mode when vehicle is not in use to save power. Cellular connection is maintained, and GPS is in standby with periodic updates to ensure quick fix on wake-up. Wake is triggered by ignition, when the accelerometer detects vibration or motion, or when the voltage of the electrical system increases.
- **3-Axis Accelerometer:** Detects vehicle use to manage power effectively and reduce power drain on vehicle batteries when parked.
- **Piezo Buzzer:** Built-in alerting Piezo Buzzer that can be remotely controlled for Payment Warning or other alarms.

## SPECIFICATIONS

### Physical and Electrical

Dimensions: 103mm \*53mm \*18.5mm  
Weight: 72 grams  
Input voltage range: 6-36VDC  
Power Consumption:  
Tracking mode avg 65mA @12VDC  
Low Power mode avg 15mA 12VDC  
Operation temp: -30°C to 80°C  
Storage temp: -40°C to 85°C

### GPS Specification:

u-blox UBX-G7020, 25mm ceramic antenna  
56-channel engine  
Tracking Sensitivity: -162 dBm  
Position Accuracy: +/- 2.5m CEP  
Cold Start Acquisition: 29s  
Hot Start Acquisition: 1 s

### Cellular Communication:

LTE Cat. 1 (4G) with dual internal antennae  
LTE Bands 4, 13 (Verizon)  
LTE Bands 2, 4, 12 (T-Mobile)  
Ultra Low Power Consumption  
Output Power: up to +23dBm  
Protocol:  
FTP/HTTP/SMTP/TCP/UDP/SMS  
Throughput: 10 Mbps DL / 5 Mbps UL

### Comprehensive IOs:

1 input, 1 output (Ignition, Starter Interrupt)  
2 LEDs for GPS and Cellular status  
Built-in Cellular and GPS antennas