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# GV650MG

LTE Cat-M1/NB2/EGPRS waterproof tracker supporting wide voltage and BLE




- **IP67/IP69K**
- **Dual band GNSS**
- **OPEN CAN Architecture**

- **LTE Cat-M1/NB2/EGPRS**
- **Ruggedized Case**
- **8 ~ 90V DC**
- **BLE 5.2**
- **Optional External GNSS Antenna**
- **Multiple I/O interfaces**
- **1-wire interface**
- **RS232 & RS485 Serial Port**
- **5800mAh Battery**
- **Scheduled Report**
- **Geo-fences**
- **Motion Detection**
- **Tow Alarm**
- **OTA Control**

The GV650MG is an LTE product specifically designed for heavy-duty equipment and cold chain applications. Its ruggedized, waterproof design ensures reliability in harsh environments. The GV650MG can operate for up to 4 months without external power, providing constant visibility for your valuable assets. With multiple interfaces, the device supports a wide range of pre-integrated accessories, offering additional functions such as driver identification, temperature monitoring, and engine control. Moreover, the GV650MG offers options for integrating OPEN CAN solutions, allowing for extensive personalization and customization based on requirements.

## Container Tracking



## Trailer Tracking



## Asset Monitoring



# Queclink | SPECIFICATIONS

## General

| | |
|---|---|
| **Dimensions** | 148(L) x 91(W) x39(H)mm |
| **Weight** | TBD |
| **Backup Battery** | Li-ion, 3.7V, 5800 mAh, 18650 battery pack |
| **Operating Voltage** | DC 8V to 90V |
| **Waterproof** | IP67, IP69K |
| **Operating Temperature** | -30°C ~ +80°C<br>-40°C ~ +85°C for storage |
| **BLE** | Support BLE 5.2 protocol |
| **Region** | Global |
| **Certification** | FCC |

## LTE

| | |
|---|---|
| **Operating Band** | LTE-FDD Cat M1: B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/B25/B26/B27/B28/B66/B85<br>LTE-FDD Cat NB2: B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/B25/B28/B66/B71/B85 |
| **Data Transmission** | LTE-FDD Cat M1: Max 588 Kbps (DL)/Max 1119 kbps(UL)<br>LTE-FDD Cat NB2: Max 127 Kbps (DL)/Max 158.5 kbps(UL) |

## GSM

| | |
|---|---|
| **Frequency** | GSM: B2/B3/B5/B8 |
| **Data Transmission** | EDGE: Max 296Kbps (DL)/Max 236.8Kbps(UL)<br>GPRS: Max 107Kbps (DL)/Max 85.6Kbps(UL) |

## GNSS

| | |
|---|---|
| **GNSS Type** | All-in-one L1/L5 dual-band GNSS receiver |
| **Constellation Support** | GPS, BEIDOU, GLONASS, Galileo |
| **Sensitivity** | Autonomous: -148 dBm<br>Hot start: -163 dBm<br>Tracking: -165 dBm |
| **TTFF (Open Sky)** | Cold start: 24s average<br>Hot start: 1s average |

## Interfaces

| | |
|---|---|
| **Digital Inputs** | 1 x positive trigger input for ignition detection(0V ~ 50V) |
| **Configurable Input/ Output** | 2 x configurable Digital input/Digital output(0V ~ 50V) |
| **Analog Inputs** | 1 x analog input (0-32V) |
| **1-Wire interface** | 1 x 1-Wire, support 1-wire interface to support temperature sensor/iButton and so on(Maxmum 8 channels) |
| **Serial Port** | 1 x RS232 serial port<br>1 x RS485 serial port |
| **Power Output** | 1 x power output (3.3V) for external devices |
| **CAN interface** | 1 x CAN1_H & CAN1_L<br>1 x CAN2_H & CAN2_L |
| **Cellular Antenna** | Internal only |
| **GNSS Antenna** | Internal and optional external |
| **BLE Antenna** | Internal only |
| **LED Indicators** | CEL, GNSS, PWR/CAN |

## Connectivity

| | |
|---|---|
| **Model** | BLE 5.2 |
| **Type** | 2.4GHz |
| **Remark** | BLE 5.2, worked as a BLE gateway to connect accessories like beacon, temperature sensor, door sensor, etc. |

## Air Interface Protocol

| | |
|---|---|
| **Transmit Protocol** | TCP, UDP, SMS |
| **Scheduled Report** | Report position and status based on preset time intervals, mileage, or a combination of these settings |
| **Geo-Fences** | Geo-fence alarm and parking alarm, support up to 20 internal geo-fence regions |
| **Speed Alarm** | Flexible speed monitoring for unusual speed alarm |
| **Low Power Alarm** | Alarm when backup battery is low |
| **Power On Report** | Report when the device is powered on |
| **SOS Alarm** | Alarm message report triggered by digital input in emergency situation |
| **Tow Alarm** | Alarm for tow event in ignition-off state |
| **Virtual Ignition Detection** | Based on accelerometer |
| **Special Alarm** | Special alarm based on digital/analog inputs |
| **Motion Detection** | Motion alarm based on internal 3-axis accelerometer |
| **Remote Control** | OTA control of digital outputs |
| **CAN Data Report** | Report CAN Data read from OPENCAN MCU |