




AVL-350 (GV350) LTE Series

LTE CAT-M1 (eMTC)/ CAT-M2 (NB-IoT) fleet tracking devices offering support for wide variety of external peripherals and I/O options














 | 75g

 | 80mm(L) × 48mm(W) × 25mm(H)

 | -30°C ~ +80°C

 | Operating Voltage: 8V to 32V DC
Li-Polymer, 250 mAh



-  Multiple I/O Interfaces
-  1-wire Interface
-  2 RS232 Serial Ports
-  J1939 Bus Port
-  OTA Control
-  Scheduled Timing Report
-  Geo-fences
-  Crash Detection
-  Driving Behavior Monitoring
-  Tow Alarm
-  Fuel Level Monitoring
-  Support Temperature Sensor
-  BLE 4.2 (Optional)

The GV350 series (LTE) includes three models of GNSS tracking devices with multiple interfaces including two RS232 serial ports and a 1-wire interface, etc. The series supports LTE CAT-M1 (eMTC)/ LTE CAT-M2 (NB-IoT) network on multiple band for operation in America, Europe, and Oceania with a fallback to GPRS.

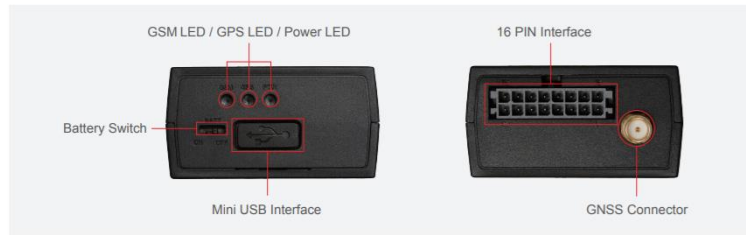


GV350 Series Models (LTE)

	Region	Network/Operating Band	GNSS Type	Position Accuracy (CEP)	Certificate
GV350MA	North America	LTE eMTC/NB-IoT LTE B2/B4/B5/B12/B13	u-blox All-in-One receiver	Autonomous: < 2.5m	FCC/Verizon
GV350ME	Europe	LTE eMTC/NB-IoT/EGPRS LTE B3/B8/B20 EGPRS 850/1800/1900 MHz	u-blox All-in-One receiver	Autonomous: < 2.5m	
GV350MB	Oceania and Brazil	LTE eMTC/NB-IoT/EGPRS LTE B3/B28 EGPRS 850/1800/1900 MHz	u-blox All-in-One receiver	Autonomous: < 2.5m	



Multiple Interfaces



Digital Inputs	1 positive trigger input for ignition detection 3 negative trigger inputs for normal use
Digital Output	1 digital output, open drain, 150 mA max drive current
Latched Digital Output	1 digital output with internal latch circuit, open drain, 150 mA max drive current
Configurable Input/Output	1 special I/O can be configured as a 0V-32V analogue input or an open drain output with 150 mA max drive current
Serial Ports	2 RS232 serial ports on 16 pin Molex type connector, for external devices
CAN Bus Interface	CAN 2.0A/B, SAE J1939
1-wire Interface	Support 1-wire temperature sensor (maximum 8 channels)
Cellular Antenna	Internal only
GNSS Antenna	Internal antenna and optional external antenna
Bluetooth Antenna (Optional)	Internal only
LED Indicators	CEL, GNSS, PWR
Mini USB Interface	Used for upgrading and debugging

Specification:

➤ GSM Specifications(GV350ME, GV350MB)

Frequency	850/1800/1900 MHz
Data Transmission	GPRS multi-slot class 33 (33 by default) EDGE multi-slot class 33 (33 by default)

➤ LTE Specifications

MODEL	GV350MA	GV350ME	GV350MB
ITEM			
Operating Band	B2/B4/B5/B12/B13	B3/B8/B20	B3/B28
Data Transmission		eMTC (DL) 375 Kbps eMTC (UL) 375 Kbps NB1 (DL) 32 Kbps NB1 (UL) 70 Kbps	

➤ GNSS Specifications

GNSS Type	u-blox All-in-One GNSS receiver
Sensitivity	Cold start: -145 dBm Tracking: -161 dBm
Position Accuracy (CEP50)	Autonomous: < 2.5m
TTFF (Open Sky)	Cold start: 30s average Hot start: 1s average



▶ Interfaces

Digital Inputs	1 positive trigger input for ignition detection 3 negative trigger inputs for normal use
Digital Output	1 digital output, open drain, 150 mA max drive current
Latched Digital Output	1 digital output with internal latch circuit, open drain, 150 mA max drive current
Configurable Input/Output	1 special I/O can be configured as a 0V-32V analogue input or an open drain digital output with 150 mA max drive current
Serial Ports	2 RS232 serial ports on 16 pin Molex type connector, for external devices
CAN Bus Interface	CAN 2.0A/B, SAE J1939
1-wire Interface	Support 1-wire temperature sensor (maximum 8 channels)
Cellular Antenna	Internal only
GNSS Antenna	Internal patch antenna and optional external antenna (SMA type connector)
Bluetooth Antenna (Optional)	Internal only
LED Indicators	CEL ,GNSS, PWR
Mini USB Interface	Used for upgrading and debugging

▶ General Specifications

Dimensions	80mm(L) x 48mm(W) x 25mm(H)
Weight	75g
Backup Battery	Li-Polymer, 250 mAh
Operating Voltage	8V to 32V DC
Operating Temperature	-30°C ~ +80°C -40°C ~ +85°C for storage
Bluetooth (Optional)	Support BLE 4.0 protocol

▶ Air Interface Protocol

Transmit Protocol	TCP, UDP, SMS
Scheduled Report	Report position and status based on preset time intervals, distance, mileage or a combination of these settings
Geo-fences	Geo-fence alarm, support up to 20 circular and 20 polygon geo-fence regions
Power On Report	Report when the device is powered on
Tow Alarm	Based on internal 3-axis accelerometer
Driving Behavior Monitoring	Aggressive driving behavior detection, including harsh braking, acceleration, etc.
Crash Detection	Accident data collection for reconstruction and analysis
Special Alarm	Special alarm based on digital inputs
Remote Control	OTA control of digital outputs