



WT-OBD (GV500) LTE Series

LTE CAT-M1 (eMTC) / LTE CAT-M2 (NB-IoT) easy install dongle trackers with BLE designed for insurance, car leasing and real-time monitoring applications

 58g	 49.49mm(L) x 48.5mm(W) x 21.9mm(H)
 -30°C ~ +80°C	 Operating Voltage: 8V to 32V DC Li-Polymer, 60 mAh



-  Compact Size
-  Plug and Play
-  OBDII Connectivity
-  BLE 4.2 (Optional)
-  Scheduled Timing Report
-  Geo-fences
-  Crash Detection
-  Motion Detection
-  Driving Behavior Monitoring
-  Low Power Alarm
-  Power On Report
-  Tow Alarm

The GV500 series (LTE) includes three compact dongle devices that plug into a vehicle's OBDII port allowing easy installation for customers. All the models within the series support BLE 4.2 that is used for data transmission. 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.



GV500 Series Models (LTE)

	Region	Operating Band	GNSS Type	Position Accuracy (CEP)	Certificate
GV500MA	North America	LTE eMTC/NB-IoT LTE B2/B4/B5/B12/B13	u-blox All-in-One GNSS receiver	Autonomous: < 2.5m	FCC/ Verizon
GV500ME	Europe	LTE eMTC/NB-IoT/ EGPRS LTE B3/B8/B20 EGPRS 850/900/1800/1900 MHz	u-blox All-in-One GNSS receiver	Autonomous: < 2.5m	
GV500MB	Oceania and Brazil	LTE eMTC/NB-IoT/ EGPRS LTE B3/B28 EGPRS 850/900/1800/1900 MHz	u-blox All-in-One GNSS receiver	Autonomous: < 2.5m	



Interfaces



OBDII Port	Provide device power
Cellular Antenna	Internal only
GNSS Antenna	Internal only
BLE Antenna (Optional)	Internal only
LED Indicators	CEL, GNSS
Micro USB Interface	Used for upgrading and debugging

Specification:

▶ GSM Specifications (GV500ME, GV500MB)

Frequency	850/900/1800/1900 MHz
Data Transmission	GPRS multi-slot class 33 (33 by default) EDGE multi-slot class 33 (33 by default)

▶ LTE Specifications

Item	Model	GV500MA	GV500ME	GV500MB
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	Autonomous: -147 dBm Hot start: -156 dBm Reacquisition: -160 dBm Tracking: -162 dBm
Position Accuracy (CEP)	Autonomous: < 2.5m
TTFF (Open Sky)	Cold start: 27s average Warm start: 27s average Hot start: 1s average



General Specifications

Dimensions	49.49mm(L) x 48.5mm(W) x 21.9mm(H)
Weight	58g
Backup Battery	Li-Polymer, 60 mAh
Operating Voltage	8V to 32V DC
Operating Temperature	-30°C ~ +80°C -40°C ~ +80°C for storage
Bluetooth (Optional)	Support BLE 4.2 protocol

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Air Interface Protocol

Transmit Protocol	TCP, UDP, SMS
Scheduled Timing Report	Report position and status at preset time intervals
OBDII Disconnection Alarm	Alarm report of OBDII connection and disconnection status
Geo-fences	Geo-fence alarm and parking alarm, support up to 20 internal geo-fence regions
Low Power Alarm	Alarm when backup battery is low
Power on Report	Report when the device is powered on
Driving Behavior Monitoring	Aggressive driving behavior detection, e.g. harsh braking and acceleration
Crash Detection	Accident data collection for reconstruction and analysis
Tow Alarm	Alarm trigger based on built-in 3-axis accelerometer