

GL300 Series

Advanced Asset Tracker



The water resistant GL300 Series asset trackers are designed for lone worker, vehicle, pet and asset tracking applications. The ergonomically designed button makes the GL300 ideal for applications requiring rapid emergency alert or instant geo-fencing based on current location. Asset trackers within the series support 2G GSM, LTE CAT-M1 (eMTC), LTE CAT-M2 (NB-IoT) on many bands supporting North American and European Cellular Operators. The built-in GNSS receiver has best in class sensitivity and supports fast time to first fix. The built-in 3-axis accelerometer allows motion detection and extends battery life through proprietary power management algorithms. System integration is straightforward as complete documentation is provided for the full featured @Track protocol. The @Track protocol supports a wide variety of reports including emergency, geo-fence boundary crossings, low battery and scheduled GPS position.

GL300 Product Series

Model No.	Region	Technology	LTE Category	Operating Band	Certificate
GL300	Worldwide	GSM	/	GSM:850/900/1800/1900 MHz	CE/FCC
GL300MA	North America	LTE	eMTC	LTE: B2/B4/B12/B13	PTCRB/FCC/Verizon/AT&T
GL300ME	Europe	GSM/LTE	eMTC/NB-IoT	GSM: 900/1800 MHz LTE: B3/B8/B20	CE/E-Mark

GSM Specifications

ITEM	MODEL	GL300	GL300ME
Frequency		850/900/1800/1900 MHz	900/1800 MHz
Data Transmission		GPRS multi-slot class 12	
		EDGE multi-slot class 12	

LTE Specifications

ITEM	MODEL	GL300MA	GL300ME
Operating Band		B2/B4/B12/B13	B3/B8/B20
Data Transmission		eMTC (DL) 300Kbps eMTC (UL) 375Kbps	eMTC (DL) 300Kbps eMTC (UL) 375Kbps NB1 (DL) 34Kbps NB1 (UL) 66Kbps



Advantages

- Multi-constellation GNSS supporting the GPS, GLONASS and Beidou systems
- Thumb sized button with haptic feedback allowing confirmed emergency alert or instant geo-fence setting
- Low power consumption, long standby time with internal battery
- Full power management, can be connected to external DC power or battery
- Internal 3-axis accelerometer for power saving and motion detection
- Water resistant
- GL300MA and GL300ME sub-models provide optional internal Bluetooth version

GNSS Specifications

ITEM	MODEL	GL300	GL300MA	GL300ME
GPS Type		u-blox All-In-One GNSS receiver	Qualcomm Gen 8C GNSS receiver	
Sensitivity		Cold Start:-147 dBm Tracking: -162 dBm	Cold start: -148 dBm Tracking: -159 dBm	
Position Accuracy (CEP)		Autonomous: < 2.5m	Autonomous: < 2.5m	
TTFF (Open Sky)		Cold start: 30s average Hot start: 1s average	Cold start: 30s average Hot start: 1s average	

General Specifications

ITEM	MODEL	GL300	GL300MA	GL300ME
Dimensions		68.5mm*38.5mm*23.5mm	77.9mm*39.9mm*26.7mm	
Weight		60g	93g	
Internal Battery		Li-Polymer 1300 mAh	Li-Polymer 2600 mAh	
Standby Time		Without reporting: 280 hours 5 minutes reporting: 120 hours	Without reporting: 400 hours 5 minutes reporting: 140 hours	
Water Resistance		IPX5 Compliant		
Charging Voltage		5V DC		
External Battery Voltage		3.5V to 4.2V DC		
Operating Temperature		-20°C ~ +55°C		

Air Interface Protocol

ITEM	MODEL	GL300	GL300MA	GL300ME
Geo-Fence		Support up to 5 geo-fence regions	Support up to 20 geo-fence regions	
Transmit Protocol		TCP, UDP, SMS		
Scheduled Report		Report position and status according to preset time intervals		
Low Power Alarm		Alarm when backup battery is low		
Power On/Off Report		Report when the device is powered on or off		
SOS/Emergency Alarm		SOS alarm when function key is pressed		
Special Alarm		Special alarm based on the digital input		
Motion Detection		Motion alarm based on internal 3-axis accelerometer		

Interfaces

Digital Inputs	Two digital inputs One positive trigger for ignition detection One negative trigger input for normal use
Power Button	Power on and power off, can be disabled via air interface protocol
Function Button With Haptic Feedback	Emergency alert or instant geo-fences setting
Cellular Antenna	Internal only
GPS Antenna	Internal only
Indicator LED	CEL, GPS and power
Mini USB Interface	For external power and configuration

Optional Bluetooth Specifications (Available for GL300MA, GL300ME)

Frequency	2.4 GHz RF transceiver compatible with Bluetooth low energy (BLE)
Receiver Sensitivity	Receiver sensitivity -88 dBm
Max out RF Power	Up to 10 dBm
BT Antenna	Internal only



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