

GSE-M101

The Full featured Vehicle Tracker for Motorized GSE (Airport Ground Support Equipments)

Product Description

The **GSE-M101** is a full featured GPS tracker designed for a wide variety of **motorized vehicle** tracking applications. It has multiple I/O interfaces that can be used for monitoring or controlling external devices.

It is supported by a wide variety of accessories. Its built-in GPS receiver has superior sensitivity and fast time to first fix.

Its quad band GPRS/GSM subsystem supports 850/900/1800/1900 MHz allowing the **GSE-M101** 's location to be monitored in real time or periodically tracked by a backend server and mobile devices. Its built-in 3-axis accelerometer allows towing detection.

System integration is provided with Eximia's **MeerKat** product. **MeerKat** supports a wide variety of functions, including maps, alerts for geo-fence boundary crossings, recording, accountability and signals as low battery or tampering tentatives.



GSE-M101 GPS Vehicle Tracker

GPS Specifications

GPS Chipset:	u-blox All-In-One GPS receiver
Sensitivity :	Autonomous: -148 dBm Hot start: -160 dBm Tracking: -162 dBm
Position Accuracy :	Autonomous: < 2.5m SBAS: 2m
TTFF (Open Sky):	Cold start: 30s average Warm start: < 30s Hot start: < 1.2s

GSM Specifications

Frequency:	Quad band: 850/900/1800/1900 MHz Compliant to GSM phase 2/2+ -Class 4 (2W @ 850/900 MHz) -Class 1 (1W @ 1800/1900 MHz)
GPRS:	GPRS multi-slot class 12 GPRS mobile station class B
RMS Phase Error:	5 deg
Max Out RF Power:	GSM850/GSM900: 33.0±2 dBm DCS/PCS: 30.0±2 dBm
Dynamic Input :	-15 ~ -108 dBm
Receiver Sens.:	Class II RBER 2% (-107 dBm)
Stability of Freq.:	< 2.5 ppm
Max Freq. Error:	±0.1 ppm

Interfaces

Digital Inputs:	Four digital inputs. Two positive trigger inputs and two negative trigger inputs.
Analog Inputs:	Three analog inputs (0 to 2.8V).
Digital Outputs:	Four digital outputs. Negative trigger, 200 mA max current drain.
Two-Way Audio:	Speaker and microphone on 24 pin molex type connector.
GSM/GPSAntenna:	FAKRA type connector for optional external antennas.
Indicator LED:	GSM, GPS and power.
Serial Port:	Two RS232 serial ports on 24 pin molex type connector. One for configuration, the other for external devices (GARMIN protocol support).

General Specifications

Dimensions:	105 mm * 78 mm * 24 mm
Weight:	140 g
Backup Battery:	Li-ion 1000 mAh
Standby Time:	Without reporting: 220 hours 5 minute reporting: 100 hours 10 minute reporting: 150 hours
Operating Voltage	8V to 32V DC
Operating Temp.	-30°C ~ +80°C (without battery) -40 ~ +85 for storage (w.o. battery)
Power Mgmt:	Full power path management. Backup battery is not used when external power is available

Air Interface Protocol

Transmit Protocol:	TCP, UDP, SMS
Scheduled Timing Report:	Report position at preset time and distance intervals.
Geo-fence:	Geo-fence alarm and parking alarm, support up to 5 internal geo-fence regions.
Low Power Alarm:	Alarm when backup battery is low.
Power On Report:	Report when the device is powered on.
Tow Alarm:	From internal 3-axis accelerometer.
Ant. Disconnect:	Alarm when the GPS antenna is disconnected.