

GPS Mini Tracker

MT-900



Data Sheet

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2F., No.136, Ziqiang S. Rd., Zhubei City, Hsinchu County 30264, Taiwan (R.O.C.)

TEL : 886-3-6578491 FAX : 886-3-6578492

MADE IN TAIWAN

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1. Introduction

The MT-900 is a portable compact tracking device for personal safety and asset monitoring. It combines high sensitivity GPS and quad band GSM/GPRS to perform the powerful security application. The MT-900 can, based on quad band GSM/GPRS network and GPS satellite positioning system, track far-away objects conveniently by Short Message or internet. It can be used for child protection, anti-kidnapping, vehicle tracking; pets go out tracking, panic assistant for the aged, and much more.

2. Features

- Available Quad band GSM/GPRS 850/900/1800/1900 MHz
- GPS 50 channels all-in-view tracking with AGPS supported.
- GPS high sensitivity -159 dBm.
- Real time dynamic reporting based on time interval.
- Data logger capability built in with 4Mega bytes flash memory to record time stamp, position and event status.(option)
- 3D G-sensor to report motion sensing, accident from $\pm 4G$.(option)
- Remote command control by SMS or GPRS network (supporting TCP/UDP).
- Emergency call and notification, plus SMS sending location.
- Geo-fence capability with out of fencing notification.
- Over speed notification capability.
- Low battery notification capability.
- Power management for low power consumption.
- Surrounding audio monitoring capability.(option)
- Mini USB for charging and data exchanging.
- Personal service center program support.
- Over the air(OTA) firmware update (option)

3. Applications

- Personal safety: Child monitoring, anti-kidnapping, locate missing kids.
- Disables' safety.
- Seniors' safety, locate lost seniors, emergent alarm.
- Security: Locate assets.
- Asset unauthorized movement detection.
- Vehicle tracking.

- Animal tracking – track pets' location.

4. Specifications

4.4 4.1 General Specification

Parameter	Specification
Operating Voltage	3.4 V
Operating Temperature	-20 °C ~ +60 °C
Storage Temperature	-40 °C ~ +85 °C
Power Consumption	Normal 150 mA
	Idle mode < 6 Ma
Battery	600mAh
USB Power	Input 5V, 500mA
Battery Voltage	Min:3.4V, Typ:3.7V, Max:4.2V
SIM card type	1.8V, 3V
SIM card Holder type	Push-Push type
LED Status Indicator	Emergent Alarm/Charge/Power/GPRS/GPS
Dimension	53 x 37 x 20 mm
Weight	39g

4.5 4.2 GSM /GPRS Specifications

Parameter	specification
Frequency	Quad band GSM/GPRS 850 /900 /1800 /1900MHz
Output Power	Class 4(2W) for EGSM 850 and 900
	Class 1(1W) for GSM 1800 and 1900
Protocol support	TCP/UDP
GPRS Multi-slot	Class 10
GPRS Mobil station	Class B
Coding scheme	CS1,CS2,CS3,CS4
PBCCH support	Yes
USSD support	Yes
Downlink/ Uplink max.	85.6Kbps/42.8 kbps(GPRS)
Current consumption	Idle mode :<1.6 mA
	GSM:< 300mA
	GPRS (2Tx,3Rx power level 10): < 410mA

4.6 4.3 GPS Specifications

Parameter	specification
Protocol	NMEA 0183 Ver3.01
Receiver channels / Fixing method	50 channels all in view
Acquisition sensitivity	-142 dBm
Tracking sensitivity	-159 dBm
Receiver frequency	1575.42MHz L1 C/A Code
Accuracy	
(1)Position	5m CEP
(2)Datum	WGS-84
Time To First Fix	
(1)Cold start	36 Sec(typ)
(2)Warm start	36 Sec(typ)
(3)Hot start	1 Sec(typ)
Dynamic condition	4G (39.2m/sec ²)

5. USB Interface

5.4 5.1 Battery Charging

1. Charging by a computer USB port:

Connect the supplied USB cable between the computer USB port and the mini USB connector of the MT-900 device.

2. Charging by a cigarette lighter power adapter:

a. Plug the USB connector of the supplied USB cable to the USB connector of the cigarette lighter power adapter.

b. Connect the mini USB plug of the USB cable to the mini USB port of the MT-900 device.

3. Charging by AC adapter:

Connect the supplied AC adapter to the mini USB port of the MT-900 device.

5.5 5.2 Parameters Setting

Connect the supplied USB cable between the computer USB port and the mini USB connector of the MT-900 device.

The USB interface is also a command and data interface which allows users to download the firmware and set configurations.

6. Button/Switch Indication

6.4 6.1 Slide switch

A micro switch for turning on or turning off MT-900.

6.5 6.2 Panic Button

Press and hold the Panic button for 3 seconds to activate the device to perform the emergency notification and followed the pre-defined setting LED Indicator (Emergency Alarm).

7. LED Indicator

7.4 7.1 Power On/Off/Idle status

For LED indicator uses green color LED to instruct the power status:

LED mode	Operation status
On	Main power on
Off	Main power off
FLASH	Idle MODE

7.5 7.2 GPS Status

For the GPS status indicator through green LED, detailed information is shown in the following table:

LED mode	Operation status
OFF	un-fixed
FLASH	fixed

7.6 7.3 GSM/GPRS Status

For the GPRS/GSM status indicator through blue LED, detailed the information is shown in the following table:

LED mode	Operation status
Off	GSM/GPRS is not running
64 ms On / 3000 ms Off	Logged to network (monitoring control channels and user interactions).
64 ms On / 300 ms Off Flashing	Indicates GSM/GPRS data transfer.
64 ms On / 800 ms Off	GSM/GPRS does not find the network

7.7 Charging Status and Emergency Alarm

For the GPS status indicator through Red LED, detailed information is shown in the following table

LED mode	Operation status
ON	Charging
OFF	Finish
Flashing	Emergency Alarm



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TEL : 886-3-6578491 FAX : 886-3-6578492

Email support@unitraq.com

Website www.unitraq.com

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