GSM/GPRS/WCDMA/HSPA GPS Mini Tracker

MT-900C

Data Sheet

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MADE IN TAIWAN

Content

1. Introduction

   The MT-900C is a portable compact tracking device for personal safety and asset monitoring. It combines high sensitivity GPS and 3G wireless interface to perform the powerful security application. The MT-900C can, based on quad band GSM/GPRS and WCDMA/UMTS/HSPA network, and GPS satellite positioning system, track far-way 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

   - 3.75G WCDMA/UMTS/HSPA communications
   - Available Quad band GSM/GPRS/EDGE 850/900/1800/1900 MHz
   - GPS 50 channels all-in-view tracking with AGPS supported.
   - GPS high sensitivity -162 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.
   - 3D G-sensor to report motion sensing, accident from ±4G.
   - Remote command control by SMS or GPRS/EDGE/3G network (supporting TCP/UDP).
   - Cell ID positioning supporting
   - 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 for MT-900CE, CA, not CF)
   - Mini USB for charging and data exchanging.
   - Personal service center program support.
   - Over the air(OTA) firmware update

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

4.1 General Specification

Parameter	Specification
Operating Voltage	3.4 V
Operating Temperature	-20 ℃ ~ +60 ℃
Storage Temperature	-40 ℃ ~ +85 ℃
Power Consumption	Normal 180mA
	Idle mode< 3mA (with mobile idle)
Battery	500mAh
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/Mobile/GPS
Dimension	53 x 37 x 20 mm
Weight	39g

4.2 Wireless Interface Specifications

Parameter	specification
UMTS/WCDMA/HSPA	900/2100 MHz (MT-900CE)
	850/1900 MHz (MT-900CA)
	800/850/900/1700/1900/2100 MHz (MT-900CF)
	Up to 5.76 Mb/s uplink, 7.2 Mb/s downlink
GSM	850 / 900 / 1800 / 1900 Mhz
	Class B Mobile Station
	PBCCH, USSD support
GPRS	Multislot Class 12, CS1-CS4
	up to 85.6 kb/s
EDGE	Multislot Class 12, MCS1-MCS9

	up to 236.8 kb/s
SMS	MT/MO, Text and PDU mode supported
Protocol support	TCP/UDP
Current consumption (at VCC=3.8V)	Idle mode :<2 mA GSM:< 250 mA GPRS < 660mA EDGE < 460 mA HSDPA < 670 mA

4.3 GPS Specifications

Parameter	specification
Protocol	NMEA 0183 Ver2.3
Receiver channels / Fixing method	50 channels all in view
Acquisition sensitivity	-148 dBm
Tracking sensitivity	-162 dBm
Receiver frequency	1575.42MHz L1 C/A Code

Accuracy
  (1)Position
  (2)Datum
	
	2.5m CEP
	WGS-84

Time To First Fix
  (1)Cold start
  (2)Hot start
	
	26 Sec(typ)
	1 Sec(typ)

Dynamic condition	4G (39.2m/sec^2)

5.　USB Interface

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-900C 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-900C device.
>
> 3. Charging by AC adapter:
>
> Connect the supplied AC adapter to the mini USB port of the MT-900C device.

5.2 Parameters Setting

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

6.1 Slide switch

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

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

7.1 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 or Idle mode

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

7.3 Mobile Status

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

LED mode	Operation status
OFF	WCDMA/GPRS/GSM is not running
FLASH	Indicates WCDMA/GPRS/GSM data transfer

Charging Status

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

LED mode	Operation status
ON	Charging
OFF	Finish
Flashing	Emergency Alarm

Emergency Alarm

For the Emergency Alarm indication, the power, GPS, and GPRS LEDs will light on for 3 seconds.

LED mode	Operation status
Power, GPS, GPRS light ON 3seconds	SOS emergency alarm

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