



## A-410M (MTK)

### *Bluetooth GPS Speed Camera Reminder*

#### GENERAL DESCRIPTION

A-410M (MTK) Bluetooth GPS Speed Camera Reminder, a total solution of GPS Bluetooth wireless technology, is dedicated design for the user who is usually carry the portable device such as PDAs/smart phones all the time. A-410M (MTK) allows up to 20 hours continuous use with a single battery charge. A-410M (MTK) uses GPS technology to provide accurate warnings to fixed and mobile speed cameras in the road ahead. The unit also including some nice features, such as vibration sensor for power management and POI update, which are the unique benefits to the users.

Not only transmit satellite information to the PDA or smart phone via Bluetooth but also become a G-Mouse GPS receiver through a data cable to deliver satellite information to the device without Bluetooth interface.

#### APPLICATIONS

- Automotive
- Personal/Portable Navigation (PDA, Pocket PC etc.)
- Location Based Services enabled devices
- Sports and Recreation

- 32 channels "All-In-View" tracking
- Cold/Warm/Hot start time: 36/33/1 sec. (average)
- Superior sensitivity: -158dBm tracking
- Built-in rechargeable Li-ion battery
- Support standard NMEA-0183 at 38400 bps baud rate
- Compatible with Bluetooth devices with Serial Port Profile (SPP)
- Support G-mouse function via USB cable
- Voice alarm and LED indicator for speeding alert
- Volume adjustable
- POI (Point of Interest) input and output via USB port; easy to add/erase POI by two buttons
- Vibration sensor for power management (auto power on or goes to sleep mode)
- Ultra low power consumption: up to 20 hours continuous use by 1100mAh battery
- Time to full recharge: within 3 hours
- Size: 77.4 (L) X 46.3 (W) X 22.5 (H) mm
- Weight: 68g (battery included)

## SPECIFICATIONS

### GPS Features

Chipset	MTK low power chipset
Frequency	L1, 1575.42MHz
C/A Code	1.023MHz chip rate
Channels	Supports 32 channels
Antenna (Internal)	Built-in low noise patch antenna

### Sensitivity

To -158dBm Tracking, Superior Urban Canyon  
Performance

### Time to First Fix (TTFF)

Cold Start	36 sec, average
Warm Start	33 sec, average
Hot Start	1 sec, average
Reacquisition	<1 sec
Update Rate	1 Hz (max.)

### Accuracy

Position	<3m CEP (50%) without SA
Velocity	0.1m/sec, without SA
Time	±50ns synchronized to GPS time

### Power

Built-in rechargeable 1100mAh Li-ion battery and 5V DC input

Operation Current ~57mA (Typical)

Operation Time Up to 20hrs, fully charged, in continuous mode

Sleeping Mode Sustain more than 2000 hours

Charging Time 3.0hrs. (Typical)

### Environmental Characteristics

Operating Temperature - 20°C to + 60°C

Storage Temperature - 20°C to + 85°C

### Datum

WGS-84

### Dynamic Conditions

Altitude	<18,000 m (60,000feet)
Velocity	<515 m/s (1000 knots)
Acceleration	<4G
Motional Jerk	20m/sec <sup>3</sup> max.

### Interface

Communication Protocol: Communicate with host platform via Bluetooth (class 2) serial port profile

Bluetooth communication distance 10meters (Typical)

GPS Protocol: Default: NMEA-0183 - GGA, GSA, GSV, RMC

Data bit: 8, stop bit: 1(Default)

### Device Size and Weight

77.4 (L) X 46.3 (W) X 22.5 (H) mm

3.05 (L) X 1.82 (W) X 0.89 (H) inch

68g (battery included)

### Accessories

Car charger (12V in, 5V output)

AC adaptor (5.3V output, 500mA)

### Camera Detector

Number of POI: factory default 180,000; my favorite point: 256

Goes to sleep mode if vehicle stays still for 15 minutes

Auto power on in 3 sec. when detecting vibration

Speaker: 1 watt/ 8 ohm

*All specifications are subject to change without notice*

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**REVISION HISTORY**

Revision	Date	Comments
V2.08	25_Feb_2008	First release