



# **Quick Installation Guide**

## **GPS Mouse Receiver**

**Model: GM611/GM621**





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### Before You Start

Your new Navibe GPS mouse allows you to turn any PDAs (Pocket PC) or PCs into a GPS Navigation System.

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## **Introduction**

The Navibe Systems GPS-mouse is a high performance GPS receiver, designed with SONY's CXD2951GA single chipset. By using SONY's CXD2951GA single chipset, GPS-mouse processes high sensitivity to satellite signals with low power consumption. It can track up to 12 satellites at a time and update data position every second.

## **Product Features**

- 12 parallel channels for fast acquisition and reacquisition
- Full navigation accuracy provided by Standard Positioning Service (SPS)
- Dual serial communication channels and user selectable baud rates allow the design with maximum interface capability and flexibility
- Support standard NMEA 0183 protocol
- Support backup power to sustain internal clock
- Internal RTC (Real Time Clock)
- Water resistant

## **Product Applications**

- Car navigation
- Marine navigation
- Fleet management
- AVL
- Personal navigation
- Tracking system
- Mapping device application





### **Technical Support**

If you have any questions or problems installing the GPS mouse, please contact Technical Support.

Hours: Weekdays 9 a.m. ~ 6 p.m.

### **Taiwan**

<http://www.navibe.com>

E-mail: [service@cpss.com.tw](mailto:service@cpss.com.tw)



**FOR GM611 PLEASE DO NOT USE PS2 CONVERTER TO DIRECT CONNECT TO PC.** (The pin assignment is different from PC's PS2 pin, please refer to **Pin Assignment**.)

**GM611 OPTIONAL ACCESSORY : USB CONVERTIBLE CABLE.  
(PLEASE DOWNLOAD USB CONVERTIBLE CABLE DRIVER  
FROM <http://www.navibe.com> )**





## Hardware Description



### Performance (Base on SONY Chip)

**Receiver** 12 parallel channels  
**Frequency** L1, 1.57542 GHz, C/A code

#### Acquisition time

Cold Approximately 50~60 seconds, typical TTFF(95%)  
Warm Approximately 35~40 seconds, typical TTFF(95%)  
Hot Approximately 02~06 seconds, typical TTFF(95%)  
Update rate Once per second, continuous

#### GPS accuracy

Position 2D RMS: approx. 5m

#### Sensitivity

Acquisition -139 dBm (average) or less in Normal mode  
Tracking -152 dBm (average) or less

#### Dynamics

Altitude Max. 18000 m  
Velocity Max. 500 m/sec  
Acceleration  $\pm 4g$

#### Power

Power Supply +4.5VDC to +5.5VDC



## Interface

GM611 Connector	PS-2 connector
GM621 Connector	USB 1.1 male connector
Baud rate	4.8K (default) to 115.2K bps software adjustable
I/O Protocol	NMEA 0183
GM611 I/O Connector	6-pin/PS-2
GM621 I/O Connector	4-pin/USB

Antenna                      Build-in patch antenna

## Physical Characteristics

Dimensions	55mm x 37mm x 17.5mm
Cable length	2 meters

## Environment Conditions

Operating Temperature	-10    to +60
Storage Temperature	-20    to +70
Operating Humidity	5% ~ 95% RH, non condensing

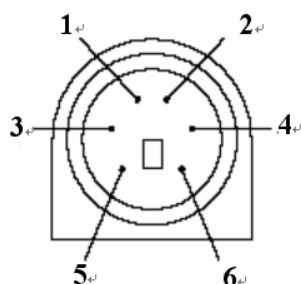
## Hardware interface

GM611 includes the PS2 connector (The pin assignment is different from PC's PS2 pin, please refer to [Pin Assignment](#).) with user selectable baud rate of 4800 (Default), 9600, 19200, 38400 or 115200 which allows you to link with your notebook PC, car phone, or other devices.

GM621 includes the USB 1.1 male connector with user selectable baud rate of 4800 (Default), 9600, 19200, 38400 or 115200 which allows you to link with your notebook PC, car phone, or other devices.



## GM611 Pin Assignment

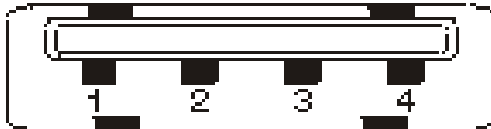


Pin	Signal Name
1	RX (TTL) – GPS input
2	RX (RS-232) – GPS input
3	Ground
4	TX (RS-232) – GPS output (NMEA)
5	TX (TTL) – GPS output (NMEA)
6	+5 VDC

**Remark:**

1. Cable length: 2 meters
2. connecting with 6-pin RS232 bridge

## GM621 Pin Assignment



Pin	Signal Name
1	+5 VDC
2	-Data
3	+Data
4	Ground

**Remark:**

Cable length : 2 meters