

Sure Electronics

GPS Demo Board

User's Guide

Product Name : RS232 Interface GPS Module Demo Board + Access
Product ID : GP-GS002
Hardware Version : Ver 1.2
Software Version : None
Document Version : V1.0

Contents

Chapter1. Quick Start Guide	3
Chapter2. Hardware	5
2-1 Electric Character	5
2-2 Schematic	6
2-3 Parts Layout	6
Chapter3. Software and Sample Codes	7
3-1 PC Software User's Guide	7
3-2 Sample Codes	8
Chapter4. Contact, Warranty and Resell Policy Contact	9

Chapter1: Quick Start Guide

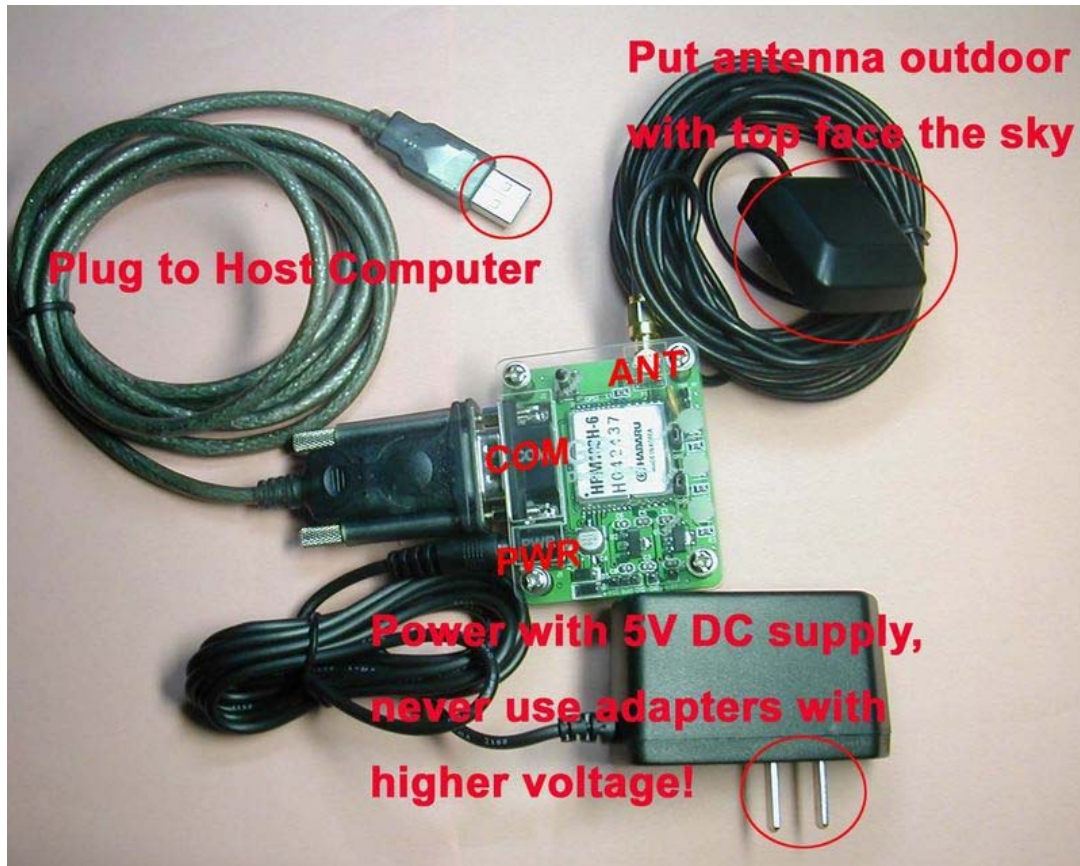


Figure 1

1. Connect the SMA connector of the Active antenna to the demo board and tie the screw (Shown in Figure 1). Put the antenna to outdoor and keep the top side face the sky. The antenna has integrated magnet, so it can be magnetized on any iron surface such like roof of your car. Try to place it with a large viewable angle of the sky, if covering with any metal material, the signal would be weak. You could only use 3.3V type active antenna with this demo board, 5V active antenna will not work. Keep the top of the antenna face the sky, or the signal may be too weak. Most active antennas are anti water type, they could work in raining days.
2. Connect the USB-RS232 dongle to your host computer with the USB connector (Shown in Figure2). And tie the RS232 side (DB-9 port) to the demo board then tie the screw. Power on your host computer and install the driver. See the instructions of the USB-RS232 adapter (Figure 2).



Figure 2



Figure 3

3. Plug the DC 5V power adapter to wall power outlet (Shown in Figure 3), then connect the coaxial plug into the GPS board's power socket, you will see the power indicator(green) lighting, and the TXD data indicator will blinking because of data transfer (Shown in Figure 4).

Never make the GPS board work with voltage over 5V DC or any AC source; the power adapter could only be 5V DC. And to protect the communicating interface of the demo board and your host computer, never hot plug all cables.



Figure 4

This GPS module is compatible with NMEA2.1 protocol, so it could work with most GPS software which will accept NMEA protocol. For testing use, you could find u-center evaluation software from U-Blox in the accessory CD. It is only for testing and studying use. We do not provide any support on how to use u-center, please view the user's guide from U-Blox carefully. And notice you should choose NMEA protocol if the GPS module is not from U-Blox, of course don't try update firmware with u-center, it may damage your module.

Your demo board should work after those steps, if you have any further questions, please read the schematic and user's guide carefully, and you could also email to support@Sure-Electronics.net , we will try to solve all questions.

Chapter2: Hardware

2 - 1 Schematic:

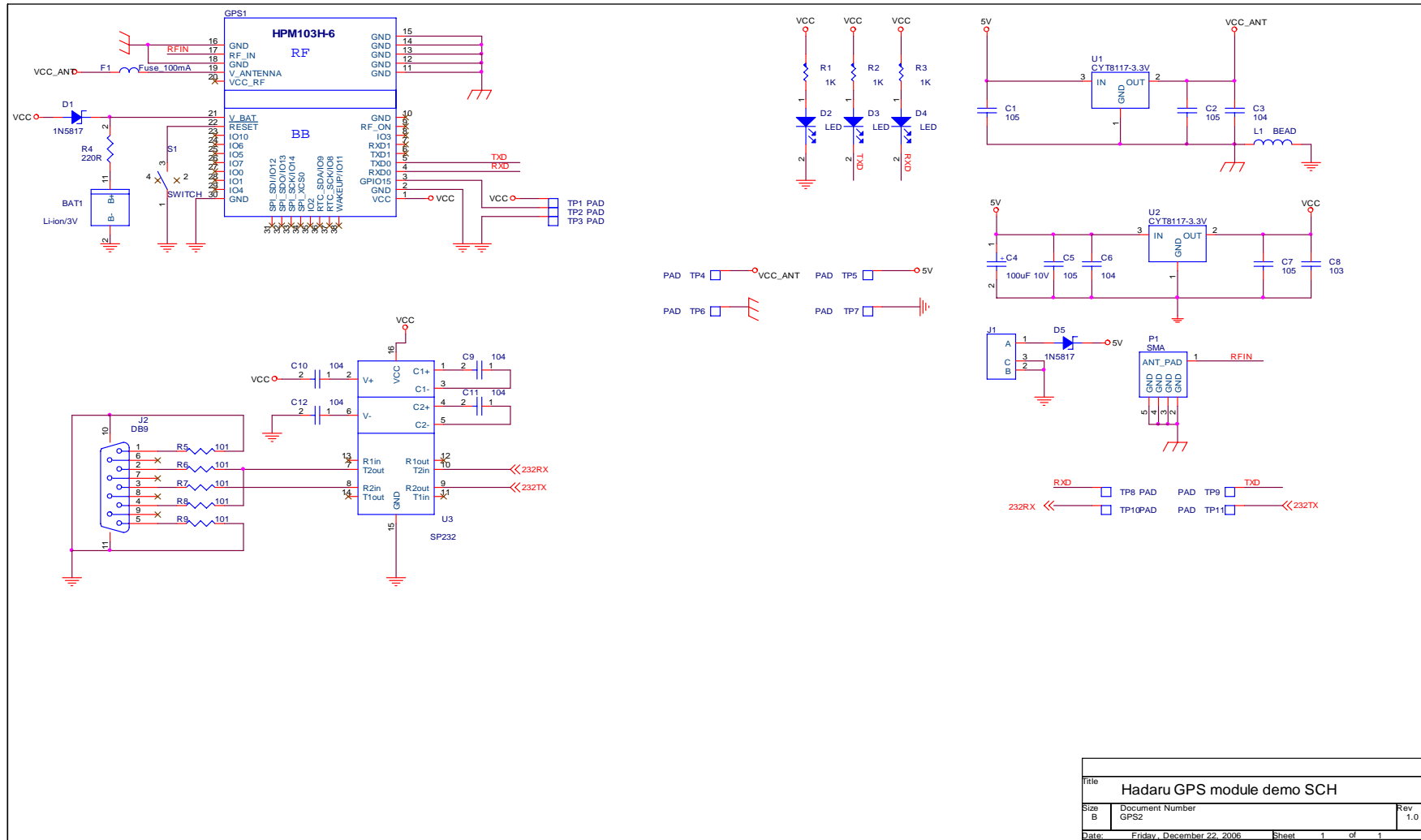


Figure 5

2 - 2 Parts Layout :

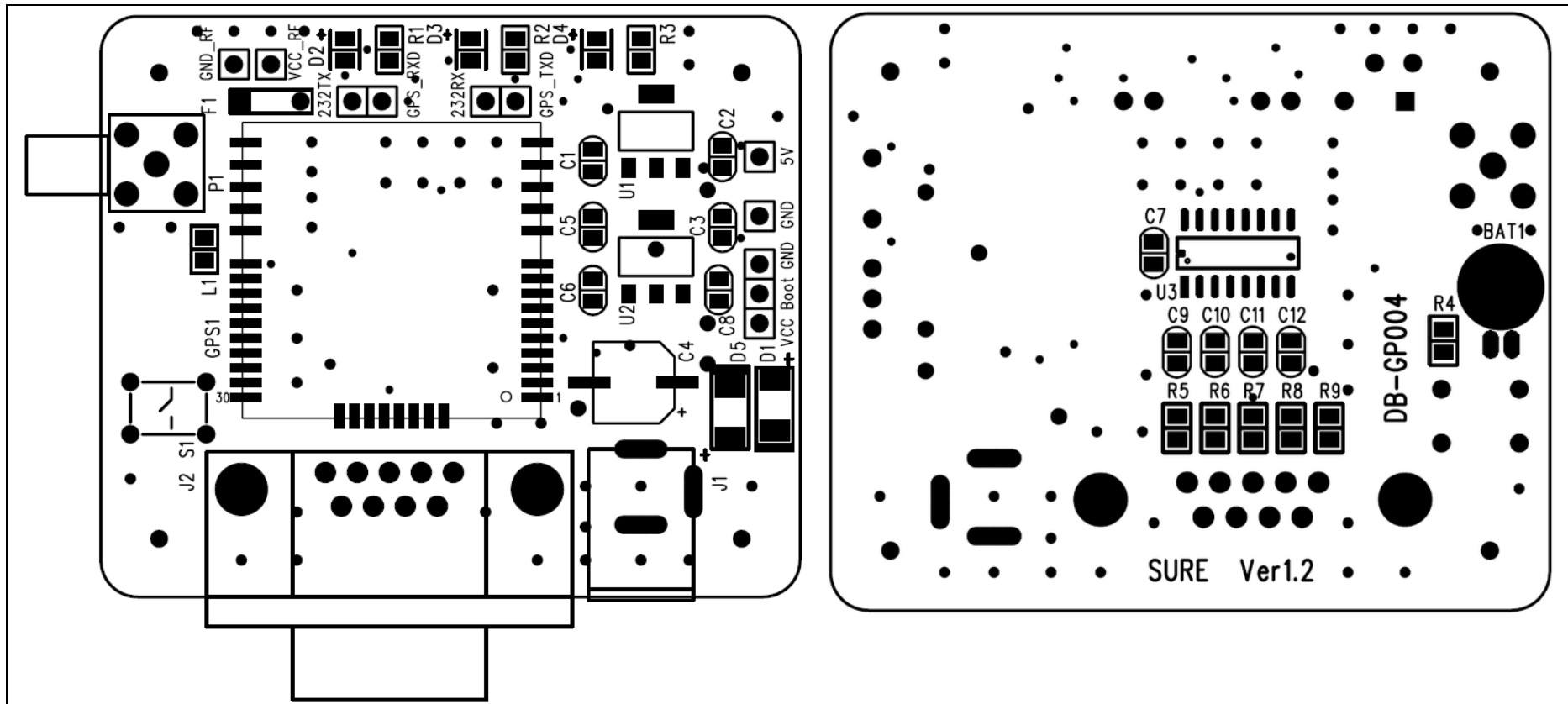


Figure 6

2 - 3 Electric Characters:

Input Voltage: DC + 4.75V~5.5V

Backup Battery: +3V

Chapter3: Software and Sample Codes

3-1. PC Software User's Guide

How to Use U-Center

1. Open U-Center, it could be locate in Start→ All Programs→ u-blox products→ u-center application, when the program is running, you will see a window like Figure 7.

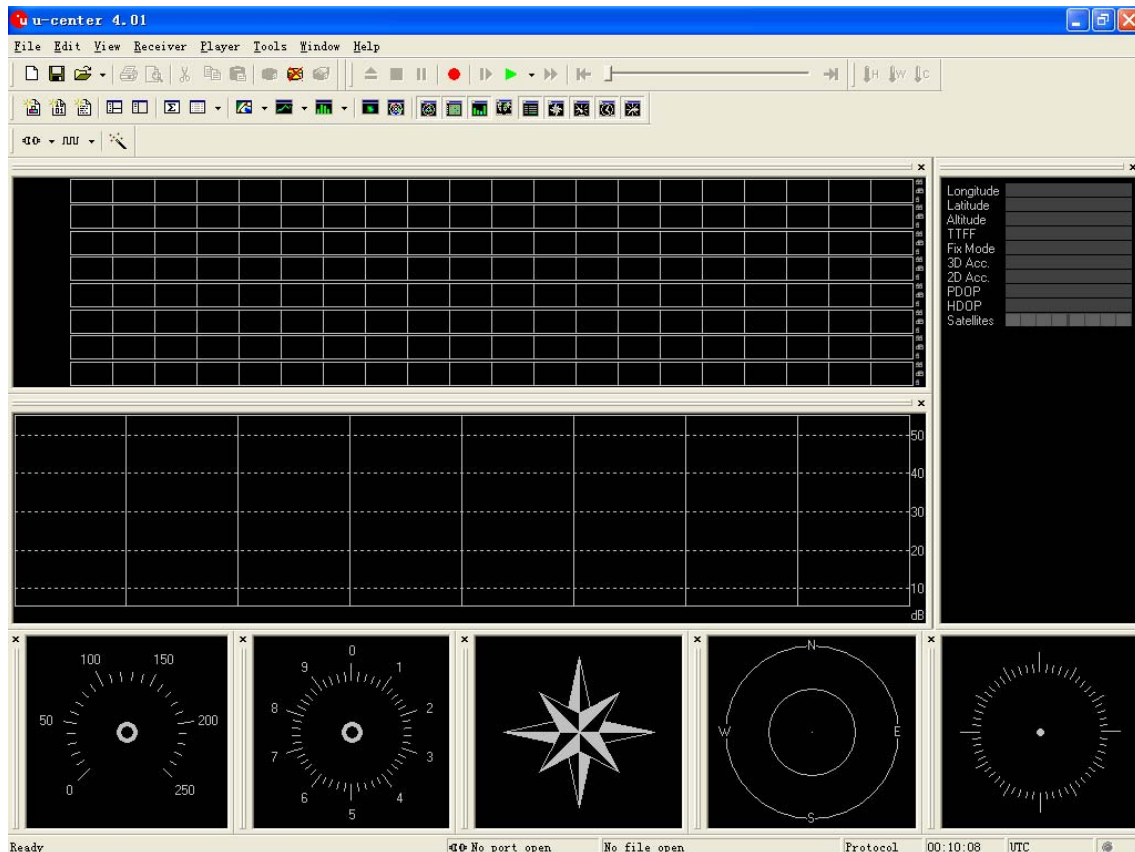


Figure 7

2. Click Receiver→ Port, and select a correct port, if you are using a USB→RS232 adapter, normally you will see com3 or com4, and maybe even higher port. If you are using integrated com port from your desktop, it should be com1 or com2. Then click Receiver→ Baudrate, then select 4800 as default. If all cables are connect correctly, you will see the port is opened in the bottom. After 1-5 minutes, you will see the satellite map (Shown in Figure8).

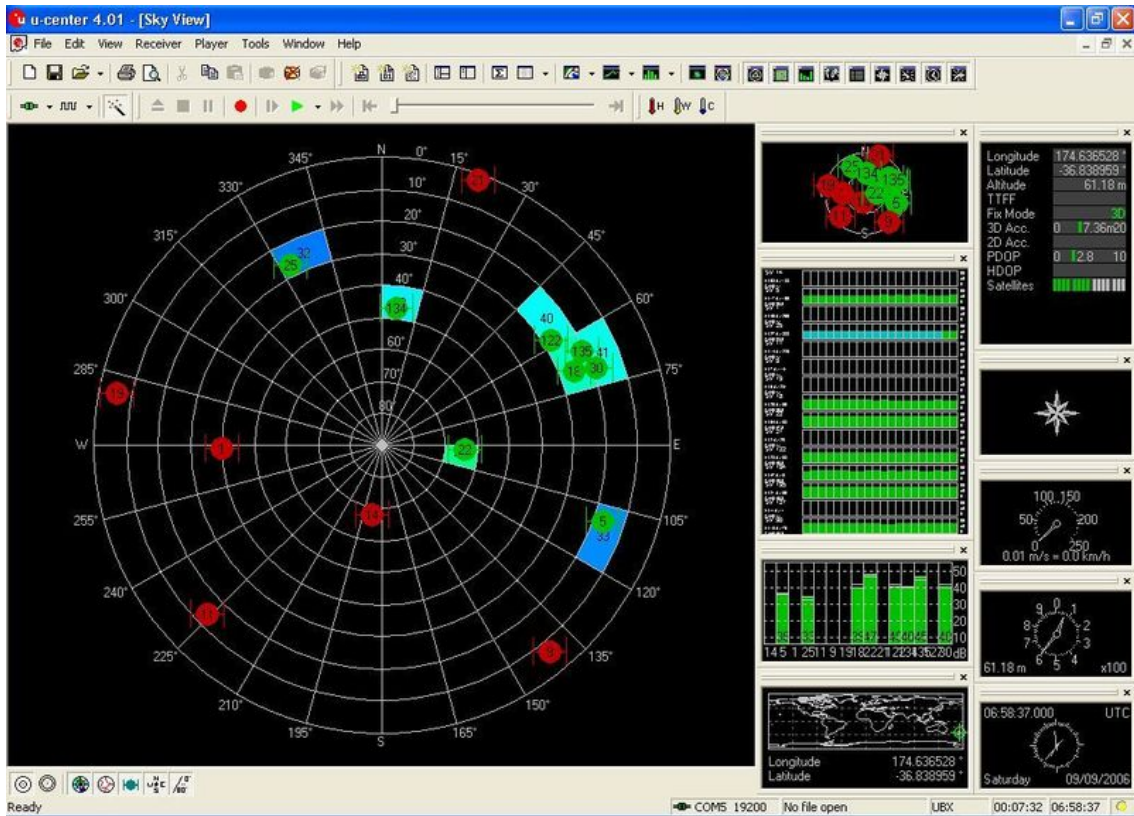


Figure 8

3. For more information, you could check the user's guide of u-center.

4. Each demo board was tested for 3 times before shipping, if it could not run, please make sure that the connection is correct.

5. To work with almost all navigation software, the setting is similar to u-center, and you could check the user's manual of those software for more information too.

3-2. Sample Codes

N/A

Chapter4: Contact, Warranty and Resell Policy

For further info, please contact us:

Sure Electronics INC.

ChangJiangDongLu 115Hao, 28Dong-104Shi

Hefei, Anhui,

China

Tel: +86 13601408832

+86 25 52864286

Fax: +86 25 52407444

Email: support@sure-electronics.net

www.sure-electronics.net