

ZYM-GMB21-3

Bluetooth GPS RECEIVER

User's Guide

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V1.0

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1. Introduction

ZYM-GMB21-3 Bluetooth GPS receiver is Globe Position System Receiver with Bluetooth wireless technology. The ZYM-GMB21-3 GPS receiver integrates Bluetooth module into GPS device, and can connect with PDA, LAPTOP though Bluetooth module. And also have the ability to connect the equipment which have no Bluetooth function though a specialty wire. When you choose Suitable navigation software, you can apply to personal, vehicle tracking, and marine navigation.

2. Main Feature

- 2.1. Build in high performance SiRFstarIII chipset.
- 2.2. Bluetooth Spec v2.0+EDR Compliant.
- 2.2. Supports the blue tooth serial port communication protocol (SPP).
- 2.3. Low power consumption.
- 2.4. Three LED lights, Indicating the Bluetooth, GPS, charge status & battery level.
- 2.5. Support Standard NMEA-0183, Baud Rate is 4800(default)
- 2.6. The design tends to miniaturization and humanistic, easy for carrying and splendid in design.
- 2.7. Use the compatible Nokia handset lithium battery, Fit for Nok3100/ 1100/ 2300/ 3105/ 3120/ 6108/ 6230/ 6600/ 6680/ 6820/ 7600/ 7610/ n70.

3. Technical Specifications

3.1. Electrical Characteristics

3.1.1 General

- 1). Frequency: L1, 1575.42 MHz.
- 2). C/A code: 1.023 MHz chip rate.
- 3). Channels: 20

3.1.2 Accuracy (Open Sky)

- 1). Position: <10m 90% no SA.
- 2). Velocity: 0.1 m/sec no SA.
- 3). Time: 1 second synchronized GPS time

4.1.2 Accuracy (Open Sky)

- 1). Position: 10 meters, 2D RMS.
- 2). 7 meters 2D RMS, WAAS corrected.
- 3). 1-5 meters, DGPS corrected.
- 4). Time 1 microsecond synchronized to GPS time.

3.1.3 Acquisition Rate (Open sky, stationary requirements)

- 1). Hot start: 1 sec., average.
- 3). Warm start: 38 sec., average.
- 4). Cold start: 48 sec., average.

3.1.4 Dynamic Conditions

- 1). Altitude : 18,000 meters (<60,000 feet) Max
- 2). Velocity: 736 m/s (<1,000 knots) Max
- 3). Acceleration: 4 G, Max
- 4). Jerk: 20 meters/second, Max

3.1.5 RF interface

- 1). Minimum signal tracked: -159dBm

3.1.6 Bluetooth performance

- 1). Bluetooth Spec v2.0+EDR Compliant.
- 2). Class 2 type Output Power

3). RF interface: -71dBm(Error rate \leqslant 0.1%)

3.2. Environmental Characteristics:

- 1). Operating Temperature Range: -10°C \sim +55°C
- 2). Storage Temperature Range: -20°C \sim +85°C
- 3). Humidity: \leqslant 95%

3.3. Physical Characteristics

1) Active Size: 65.6(D) \times 39.4(W) \times 17.5(H)(mm)

2) Weight: less than 10 g

3) Packing list:

1. Main engine	1
2. Charge lithium battery	1
3. User's manual(Contains a disc)	1
4. Travel battery charger	1
5. Travel power supply/Cigarette adapter	1



GPS Engine



Travel adapter



Cigarette adapter



USB wire



lithium battery

3.4. Hardware Description



3.5. LED indicator

LED	Status	Description
Blue	lamp fast	disconnected
	lamp slow	connected
Yellow	On	GPS unnavigated
	lamp slow	GPS navigated
Red & Green	Green on	Charging
	off	Fully charged
	Red LED lamp faster	battery is poor

4. Operation manual

4.1. Battery install

Takes down the battery top plate, loads the battery in the battery cavity, again on box battery top plate.

4.2. charge

The use travel battery charger is the product power supply, this time the green LED shines, demonstrated the present product is being at the charge condition. When charge conclusion, the green green LED lantern festival extinguishes, this time may tear off the battery charger.

4.3. Switch machine

This product power source pressed key belongs guards against the vibration design, the user presses the POWER key 1 second then to be possible to complete the starting process, this time the blue color LED lamp quickly dodges prompts the user to complete the starting process.

The user may long press the POWER key for 1 second to close the GPS module work (this time product to be at low power condition, connects bluetooth equipment to be able to stimulate the GPS module automatically power source power supply), if presses the POWER key to maintain for 2 seconds, then the system can close the system power supply.

4.4. Bluetooth connection

4.4.1 Connect PDA which Integrates the blue tooth equipment

- 1) start GMB21-3.
- 2) Refers to PDA's bluetooth user's manual, connects PDA with GMB21-3, when connection needs to input pairs the password, may input "0000", until prompts the blue tooth whether has to establish the COM connection, the choice is "YES".
- 3) Inspects the serial communication port which the blue tooth uses (majority of PDA to tacitly approve for COM6).
- 4) Turns on the appropriate navigation software, chooses the correct COM port, set baudrate to 4800 then may use normally.

4.4.2 Connect to Laptop which Installs the bluetooth adapter

- 1) start GMB21-3.
- 2) Refers to bluetooth adapter user's manual, connects Laptop with GMB21-3, when connection needs to input pairs the password, may input "0000"
- 3) Inspects the serial communication port which the blue tooth uses
- 4) Turns on the appropriate navigation software, chooses the correct COM port, set baudrate to 4800 then may use normally.

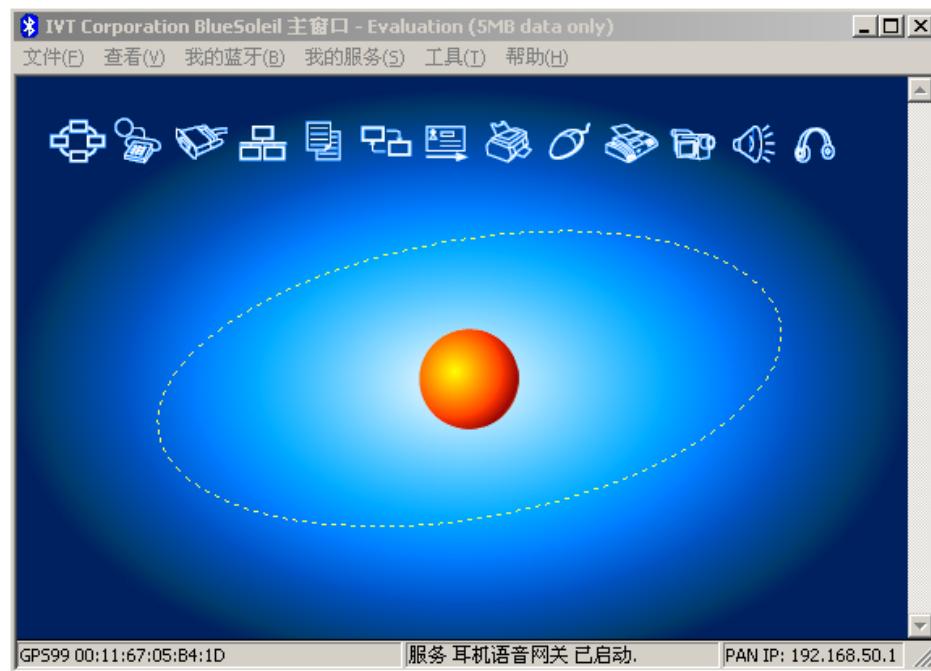
Notice: The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment

IMPORTANT NOTE: To comply with the FCC RF exposure compliance requirements, no change to the antenna or the device is permitted. Any change to the antenna or the device could result in the device exceeding the RF exposure requirements and void user's authority to operate the device.

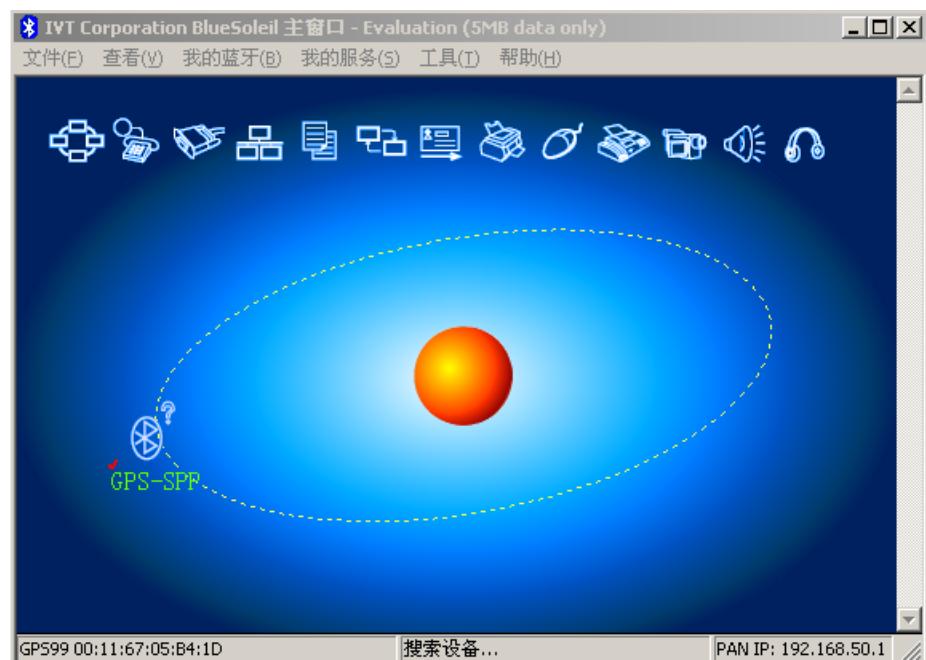
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

5. Appendix A Bluetooth connection Explanation

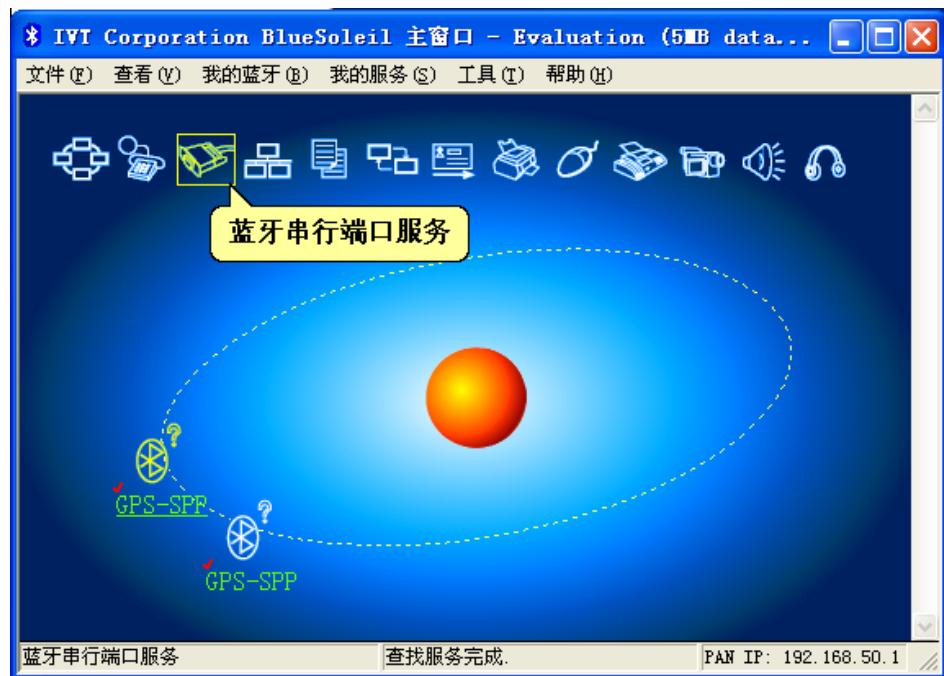
Step one: Open IVT Bluesoleil



Step two: Single-clicks the central red sphere, searches the blue tooth equipment.



Step three: Double-clicks blue tooth equipment which just searched, searches service which this blue tooth equipment could provide, this product could provide the blue tooth serial port service.



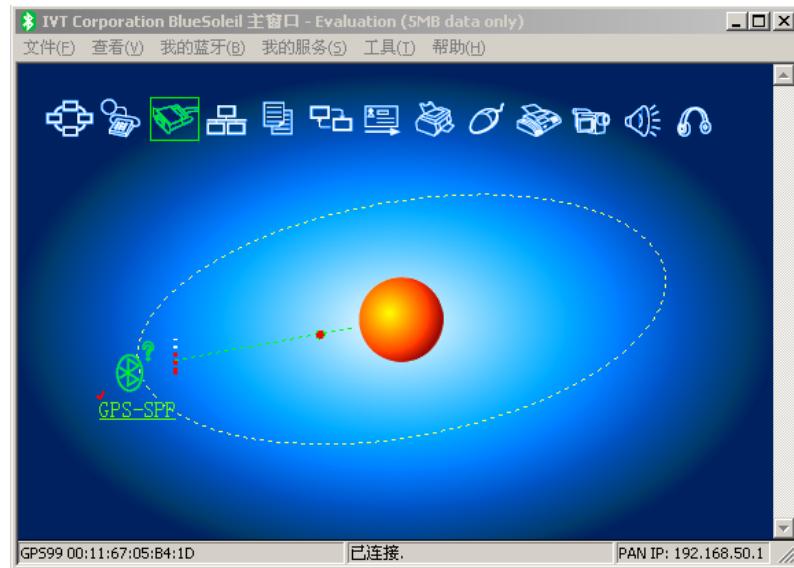
Step four: Single-clicks the blue tooth serial port service chart sign, if you are first time with this product connection, the system possibly can provide must input the password, may input "0000".



Step five: After the determination, IVT can prompt: My blue tooth portCOM6 (COM6) already and long-distance equipment establishment connection

* 我的蓝牙端口COM6 (COM6) 已与远程设备建立连接.

Under when the string mouth turns the chart shows the green, indicated this blue tooth has been allowed normally to receive.



This time may use in the compact disc the GPSView software choice equipment COMport is COM6, and the baudrate is 4,800, single-clicks opens GPS then to be possible normally to receive the signal.

