



# LGSF3000

## Bluetooth GPS Receiver Express Directory

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LITE-In Tech. Co., Ltd.,  
4F, No. 20, Lane 50, Sec. 3, Nangang Rd., Taipei 115, Taiwan, R.O.C.  
Phone : +886-2-2786-3636 Fax : +886-2-2783-0909  
E-Mail : [lite-in@lite-in.com](mailto:lite-in@lite-in.com) Web : <http://www.lite-in.com>

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## 1. Express introduction

### 1.1 Package contents

GPS receiver, rechargeable lithium-ion battery, Cigarette lighter adaptor, power adapter, USB cable, user guide °

### 1.2 Charging the battery

Please put the battery into the GPS Receiver's battery tank, and charge it for 10-12 hours before you use it.

### 1.3 Connecting to Bluetooth device

Before use it, please start the PDA or PC Bluetooth function, and press the power switch for 3 seconds, then ready to pair Bluetooth serial port profile. If there is no Bluetooth on your device, you may need Bluetooth CF card and Bluetooth SD card.

Note : There is an enquiry window for Bluetooth pairing pin code appeared at the first time.

(Bluetooth pairing pin code : **0000**)

### 1.4 Create shortcut

After establishing the pairing function, the system will build a pair illustration automatically. The illustration will be on your Bluetooth device. As soon as touching the illustration, the signal will connect to the Bluetooth GPS receiver easily

### 1.5 Check and settle compliant Bluetooth Serial Port Profile

After establishing the pairing function, then touch serial port Profile to confirm the port. Please select the transmission serial port on your PDA or PC.

### 1.6 Select the correct Bluetooth output Serial Port Profile

Please set the correct output Serial Port on the software.

### 1.7 Turn off the Bluetooth function

After turning off the PDA or PC, press the power switch of GPS Receiver for 3 seconds, the LED indicator will be shutdown.

## 1.8 Other information

### 1.8.1 LED indicator

<b>status</b>	<b>flashing / light</b>
orange / charging	Battery charging in progress : orange
red / low power	low power : red
blue / Bluetooth	1. waiting for Bluetooth connection : flashing blue (once per 2 seconds)
	2. Bluetooth connect to a device : flashing blue (once per 5 seconds)
green / satellite connect	1. GPS positioning in progress : flashing green (once per 2 seconds)
	2. GPS positioned : flashing green (once per 5 seconds)

(Definite LED indicators can be seen from the trunk lip)

### 1.8.2 Bluetooth pairing pin code

The pairing pin code of LGSF3000 : '0000'

### 1.8.3 Datum

datum : WGS84

protocol output data : GGA, GLL, GSA, GSV, RMC, VTG

baud rate : 4800

## 2. General characteristics

### 2.1 Product feature

Bluetooth GPS receiver is a compact design with internal passive antenna, with Bluetooth wireless technology and build in flash based firmware. Without any wiring requirement GPS receiver adds GPS positioning capability to any Bluetooth enabled device with lower power consumption. The high performance and high sensitivity to -159dBm may survey 20channels all-in-view tracking by the cold start.

With the LED indicators, user may get the statues of power, Bluetooth and position surveying.

Bluetooth GPS receiver supply an incredible high sensitivity for acquisition and superior navigation performance in urban, canyon and foliage environments.

The applications include vehicle tracking, fleet management, chart, location-based Services security, marine navigation and agriculture.

### 2.2 Product specification

#### 2.2.1 Physical characteristics

dimension : 49(W) x 85(L) x 31(H) mm

weight : 80g (with battery)

internal passive antenna and GPS receiver

#### 2.2.2 power source

input charging circuit : 5v DC

Lithium-ion battery : +3.7v, 1100 mAh or 1000 mAh

#### 2.2.3 GPS specification

Chipset: SiRF Star III with high performance, low power consumption.

Channels : 20 channels all-I –view tracking

Support Standard : NMEA-0183

Hot start : 1s (average)

Warm start : 38s (average)

Cold start : 42s (average)

Acceleration : 4g max..

Altitude : 18000m max..

Reacquisition : 100ms

Velocity : 515m/s max..

Position accuracy : 10m 2DRMS

Reacquisition Time : 1 microsecond synchronized to GSP time

#### 2.2.4 Bluetooth specification

Wireless requirement Compatible with Bluetooth devices v1.1 v1.2 v2.0

Bluetooth standard	all transmission standard w/ extend standard SCO
Bluetooth profile	Serial Port Profile (SPP)
Frequency range	2.4 GHz public free channel ISM
Transmission range	(by open space) 10m (30feet)
Input sensitivity	< -85dBm

### 2.2.5 Battery

- 1) Form replaceable rechargeable lithium-ion battery
- 2) Capacity 1100 mAh
- 3) Current consumption 3.7 V
- 4) Load impedance (after package) 30 – 70 ohms
- 5) Weight 23 g
- 6) Max. charge ampere 1.0 A ( 1000mA )
- 7) Charging circuit  $4.20 \pm 0.05$  V
- 8) Max. discharge ampere 1.0 A ( 1000mA )
- 9) Charge CC/CV
- 10) Operation temperature range charge : 0 ~ 45 °C  
discharge : -20 ~ +60 °C
- 11) Storage temperature range within 1 month : -20~+60 °C  
within 3 months : -20~+40 °C  
within 1 year : -20~+20 °C

### 2.2.6 Interface

Communication with host platform via Bluetooth Serial Profile  
v2.0 , auto-adjust transmission velocity  
NMEA 0183 2.2. ASCII output format (GPGGA, GPGLL, GPGSA,  
GPGSV, GPRMC, GPVTG).

## 2.3 Caution notes

- 1) Bluetooth GPS receiver the operating time is -20 ~ +60 °C. It will be damaged under the over-high or over-low temperature.
- 2) There is no harm to the battery by external power source. -40 ~ +85°C.
- 3) Please charge it for 10-12 hours at first time to use it.

## 3. Hardware interface

### 3.1 Hardware input & output interface

The Bluetooth GPS receiver is with Bluetooth wireless technology, internal passive antenna and rechargeable lithium-ion battery, as put it on the instrument panel or any direction to the sky. The GPS signal will be transmitted via Bluetooth serial port profile to your notebook, PDA or other devices.

### 3.2 Charge connector

USB cable (also may connect to notebook or PC for charging) easily connect to the car charger

## 4. Certification

### 4.1 BQB - Bluetooth Qualification Body

### 4.2 R&TTE - Radio and Telecommunications Terminal Equipment

### 4.3 CE - European Union Regulatory

### 4.4 FCC - FCC ID : UH6-LGSF3000

#### **Federal Communication Commission Interference Statement**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

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.

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. To maintain compliance with FCC RF exposure compliance requirements, please avoid direct contact to the transmitting antenna during transmitting.

## 5. Limited warranty

The company warrants this product to be free from defects in materials and workmanship for one year from the original date of consumer purchase. This limited warranty is non-transferable and does not apply if the product has been damaged by negligence, accident, abuse, misuse, modification, misapplication. The manufacturer's liability under this warranty is limited to the repair or replacement of the defective product.

There are no other oral or written warranties, expressed or implied, including but not limited to those of merchantability or fitness for a particular purpose.

## 6 Troubleshooting Guide

Problem	Possible Cause	Solution
Positioning fail but the satellite signal appears normal	The place of GPS Receiver get weak signal or no signal	Please move GPS Receiver to a signal receivable place. The high building, ceiling of the car and the super heat insulation film may cause positioning fail and weak signal.
Bluetooth function unstable	Start Bluetooth Serial Port Profile fail (GPS Receiver un-connection), or Bluetooth Serial Port Profile is occupied by other devices.	Restart PDA or PC, reset GPS Receiver connection, or reinstall the navigation software.
Device is no Bluetooth found, GPS connection fail	GPS Receiver low power, or turn on the switch erroneously.	Please recharge it or repress the switch button for 3 seconds again.

\* Consult the dealer for help, if there are no solutions above-mentioned.



## Appendix I

### Warranty

Model No. \_\_\_\_\_

Date of Purchase: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

E-mail Address: \_\_\_\_\_

Distributor Stamp Here

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