



# GPS Wireless Solutions

## Model: BT112A-GPS



### Product Specifications

Rev 1.1

<b>Model Number</b>	BT112A-GPS
<b>Descriptions</b>	Bluetooth GPS Receiver
<b>General</b>	
GPS Frequency	L1, 1575.42 MHz
C/A code	1.023 MHz chip rate
Channels	16 Channel all in view tracking
Chipset	NEMERIX GPS Module
Antenna Type	Built-in Ceramic patch antenna (External antenna optional)
Operating Distance	Wireless Communication within 10 meters
Throughput	460 K bps (Data channels)
Regulatory Approval	FCC, CE Class B
Dimensions	81(L) x 44(W) x 20 (H) mm
Weight	75g with chargeable battery, 50g without chargeable battery
Environment Operation Temp.	Storage temperature: -55°C ~ 85°C @ Humidity 5 ~ 90%
	Operating temperature: -20°C ~ 60°C @ Humidity 5 ~ 90%
<b>Sensitivity</b>	
Tracking	-152 dBm typical
Acquisition	-139 dBm typical
<b>Accuracy</b>	
Position	3 meter CEP (50%) without SA (Horizontal)
	7 meters CEP (90%) without SA (Horizontal)
Velocity	0.1 meters/second without SA
Time	±0.1 microsecond synchronized to GPS time
<b>Datum</b>	
Default	WGS-84
<b>Acquisition Rate (Open Sky &amp; Stationary Requirements)</b>	
Reacquisition	1 sec., average
Snap start	2 sec., average
Hot start	12 sec., average
Warm start	38 sec., average
Cold start	60 sec., average
<b>Dynamic Conditions</b>	
Altitude	18,000 meters (60,000 feet) max.
Velocity	515 meters/second (1000 knots) max.
Acceleration	4g max.
Jerk	20 meters/second <sup>3</sup> , max.
<b>Power</b>	
Main power input	5V DC input
Operational Power	3.3VDC±10% (from internal Lithium-Polymer battery pack)
Battery Source	Rechargeable and removable 850mAh Lithium-Polymer battery with 5V DC input charging circuit.
Battery Charging Time	Full charge 2.5 hours Typical
Backup Power	3.3V (internal on board rechargeable backup battery)
Operation Current	45 mA Typical
Operation Time	18 hours after fully charge in continuous tracking mode

<b>Radio</b>	
Spread Spectrum	Frequency Hopping Spread Spectrum (FHSS) Compliant with FCC part 15
Frequency Range	2.4 – 2.4835 GHz (2.4 GHz ISM Band)
RF Channels	79-channel system for USA, Japan, and Europe
Polarization	Linear
Modulation	GFSK, BT =0.5
Output Power	4 dBm (Max.)
Receiver Sensitivity	-70 dBm with BER < 0.1%
Max Input Level	-20 dBm

### Firmware Specification

Core firmware	2.0.11.0
Baud rate	9600
Code type	NMEA-0183 (V3.01)
Datum	WGS-84
Protocol message & Output frequency	GGA (1Hz), GSA (0.3Hz), GSV (0.3Hz), RMC (1Hz), VTG (1Hz)

### Package Contents

1. **BT112A-GPSG: Gift Box Package**
  - a. **Bluetooth GPS Receiver x 1**
  - b. **Lithium-Ion Rechargeable Battery x 1**
  - c. **AC Power Adapter x 1**
  - d. **Car Power Adapter x 1**
  - e. **Diagnostic CD x 1**
  - f. **User Guide x 1**
  - g. **Optional : Bluetooth CF Card(BT2000-CF)  
with driver**



### Carton information

1. **Gift box size: 23 cm x 15 cm x 6 cm**
2. **Unit weight: 0.5 Kg**
3. **Carton size: 78 cm x 48 cm x 32 cm**
4. **N.W: 23 Kg (50pcs/Carton)**
5. **G.W: 24 Kg**