

## BTS-110 Bluetooth GPS Data



### Key Functions & Features

- Bluetooth GPS receiver and GPS data logger all in one
  - Optional Flash memory 4 MBytes/8 MBytes/16 Mbytes
  - Data upload/download via mini USB
  - Motion sensor for auto power saving mode: the device switches on/off when it is moving/motionless.
  - Power mode setting: GPS on only or bluetooth and GPS both on
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- Support Speaker Sound, LED indications
  - Ultra low power consumption, up to 22hours of continuous use with battery fully charged
  - Rechargeable 1100mA Li-ion battery with the original made-in-Japan battery cells
  - Cold/warm/hot start (42/38/3~6 seconds)
  - 16 channels "All-in-View" tracking.
  - Compatible with bluetooth enabled devices with Serial Port Profile (SPP)
  - High sensitivity: -152dbm
  - Build-in High Gain antenna
  - Data format: longitude, latitude, speed , UTC
  - GPS trace interval time setting from 1sec ~ 30 minutes
  - GPS Trace data by distance interval 2~65535 meters

### Power Consumption for Different Power Setting Mode

Mode	Status	Max.	Min.	Avg.
GPS+BT	BT connecting	89.1mA	42.9mA	50.4mA
GPS+BT	BT disconnecting	67.3mA	42.2mA	46.1mA
GPS only	GPS connecting	45.8mA	40.2mA	41.1mA
GPS only	GPS disconnecting	43.8mA	38.2mA	39.1mA
Auto power saving	Power off	0.42mA	0.41mA	0.41mA

## Specifications

<b>General</b>		<b>Accuracy</b>	
GPS Chip	NEMERIX GPS Module	Position	3meters CEP (50%), without SA (Horizontal) 7 meters (90%)
Frequency	L1, 1575.42MHz	Velocity	0.1 m/sec. without SA
C/A Code	1.023MHz chip rate	Time	±100 ns synchronized to GPS time
Channels	16 CH all in view tracking	<b>Datum</b>	
Internal Antenna	Built-in low noise	WGS-84 (or by demanded)	
I/O	External antenna port MMCX	<b>Sensitivity</b>	
	Mini.USB 1.1/2.0( 12Mb)	To – 152 dBm	
Audio Output	Speaker: 1Watt / 8 ohm	<b>Dynamic Conditions</b>	
LED:	bluetooth, GPS, power status	Altitude	<18,000m
<b>Acquisition Rate</b>		Velocity	<515m/sec
Cold Start	45 sec, average	Acceleration	<4g
Warm Start	35 sec, average	Motional Jerk	20 m/sec.
Hot Start	5 sec, average	<b>Interface</b>	
Reacquisition	1 sec, average	<u>Communication Protocol</u>	
<b>Power</b>		Communicate with host platform via	
Built-in rechargeable 1100 mAh Li-ion battery		Bluetooth (class 2) serial port profile	
5 V DC input		Bluetooth communication distance 10 M. TYP.	
Operation Current	45 mAh (Typical)	<u>GPS Protocol</u>	
Operation Time	22 hrs, fully charged	NMEA-0183 (V3.01) – GGA(1), GSA(3),	
Charging time	3 hrs. (Typical)	GSV(3), RMC(1),VTG(1), Baud rate 38400 bps,	
<b>Environmental</b>		Data bit: 8, stop bit : 1(Default) *	
Operating Temperature	- 20 to + 60	* (1):1sec output 1msg , (3): 3sec output 1msg	
Relative Humidity	5% to 90% non-condensing	<b>Device Size</b>	
<b>Accessories</b>		Dimension: 76 (L) X 46 (W) X 20 (H) mm	
Car charger (12V in, 5V output)		Weight: 50g (without battery)	
AC adaptor (5.3V output, 500ma)			

## UI Function

