BT-23 Bluetooth GPS Receiver

GENERAL DESCRIPTION

BT-23 Bluetooth GPS receiver, a total solution of GPS Bluetooth wireless technology, acquires 32 satellites in parallel, provides unbelievable positioning sensitivity and transmitting ability to an easy position-fix from urban or canyon area. BT-23 allows from 12 hours continuous use to stand-by time up to one week with a single battery charge. BT-23 Bluetooth GPS receiver works to all Bluetooth smart phones, lap-top, PDA regardless of brand in an operating range of more than 10 meters. The high performance GPS receiver BT-23 is an ideal receiver to be used in any strict weather condition, so to easily find your way.

Key features

- High sensitivity, acquire 32 satellites in parallel
- Superior tracking capability: -157dBm tracking
- Capable of in-door use: <20m (RMS)
- NMEA-0183 V2.2 compatible
- Data rate: 9600/38400bps
- Ultra low power consumption: 12 hours continuous use to stand-by time up to one week by 1000mAh battery
- Time to full recharge: within 3 hours
- 3 LEDS display all GPS, Bluetooth and power status
- Auto power on/off function
- Size: 81.0 (L) X 43.0 (W) X 17.6 (H) mm
- Weight: 70g (battery included)
- Non-slip back pad for a secure placement
- Optional external MMCX antenna
- Car charger, adaptor, and CD driver are included in package
- Optional data USB cable (Auto-off functional will be disabled if select data USB cable.)

**SPECIFICATIONS**

**GPS Features**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chipset</td>
<td>RFMD</td>
</tr>
<tr>
<td>Frequency</td>
<td>L1, 1575.42MHz</td>
</tr>
<tr>
<td>C/A Code</td>
<td>1.023MHz chip rate</td>
</tr>
<tr>
<td>Channels</td>
<td>Adaptive, 8 – 32 SVs (best 8 used in solution)</td>
</tr>
<tr>
<td>Antenna (Internal)</td>
<td>Built-in low noise antenna</td>
</tr>
<tr>
<td></td>
<td>External Active MMCX Antenna</td>
</tr>
</tbody>
</table>

**Sensitivity**

To – 157dBm Tracking, Superior Urban Canyon Performance

**Time to First Fix (TTFF)**

<table>
<thead>
<tr>
<th>Start Type</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cold Start</td>
<td>43 sec, average</td>
</tr>
<tr>
<td>Warm Start</td>
<td>25 sec, average</td>
</tr>
<tr>
<td>Hot Start</td>
<td>4 sec, average</td>
</tr>
<tr>
<td>Reacquisition</td>
<td>&lt; 3sec</td>
</tr>
<tr>
<td>Update rate</td>
<td>1 sec</td>
</tr>
</tbody>
</table>

**Accuracy**

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Position</td>
<td>Open sky: &lt;5m (RMS)</td>
</tr>
<tr>
<td></td>
<td>In door: &lt;20m (RMS)</td>
</tr>
<tr>
<td>Velocity</td>
<td>0.1m/sec, without SA</td>
</tr>
<tr>
<td>Time</td>
<td>±100ns synchronized to GPS time</td>
</tr>
</tbody>
</table>

**Power**

Built-in rechargeable 1000mAh Li-ion battery and 5V DC input
Operation Current <80mA (Typical)
Operation Time 12hrs, fully charged, in continuous mode
Charging time 3.0hrs. (Typical)

Environmental Characteristics
Operating Temperature - 20°C to + 60°C
Storage Temperature - 50°C to + 100°C

Datum
WGS-84 (or by demanded)

Dynamic Conditions
Altitude <18,000m
Velocity <515m/s
Acceleration <1G
Motional Jerk 4 m/sec

Interface
Communication Protocol: Communicate with host platform via Bluetooth (class 2) serial port profile
Bluetooth communication distance 10meters (Typical)
GPS Protocol: Default: NMEA-0183 V2.2 - GGA, GSA, GSV,
GLL, RMC, VTG, Baud rate 9600/38400 bps,
Data bit: 8, stop bit: 1(Default)

Device Size and Weight
81.0 (L) X 43.0 (W) X 17.6 (H) mm
3.19 (L) X 1.69 (W) X 0.69 (H) inch
70g (battery included)

Accessories
Car charger, AC adaptor, Manual CD, Non-slip pad

Certificates
CE, FCC & BQB