



BT-CD110

Ultra Low Power GPS Bluetooth® Receiver with Data Logger Functionality

GENERAL DESCRIPTION

The BT-CD110 is the industry leading Bluetooth GPS receiver that offers simultaneous use of real-time GPS reception and data logging. The BT-CD110 features extended battery life, (up to 22 hours) with rechargeable battery and increased memory size. (4MB) It can interface with any Bluetooth-enable mobile device to provide GPS data to applications. The BT-CD110 is capable of keeping up to 250,000 records or positions, including longitude, latitude, speed, UTC, and tag data. The log file can be downloaded for analysis via high-speed USB connection, the location histories can also be exported to mapping software such as Google Earth or TrackMaker.

It can be used as a wireless and mobile data logger for asset tracking, fleet management, heavy logistics and dangerous goods transportation.

APPLICATIONS

- Land/Marine Navigation
- Asset Tracking
- Telematics
- Fleet Management
- Sports and Recreation

KEY PRODUCT FEATURES

- 16 channels "All-In-View" tracking
- Cold/Warm/Hot start time: 45/38/6 sec. (average)
- Superior sensitivity: -152dBm tracking
- Built-in rechargeable Li-ion battery
- Support standard NMEA-0183 at 38400 bps baud rate
- Compatible with Bluetooth devices with Serial Port Profile (SPP)
- 4M Bytes flash memory for data logging, with 16 bytes binary data per record that stores up to 250K data records
- Log data can be exported to mapping software such as Google Earth and TrackMaker
- Logging data interval programmable: by time or distance
- Data tag (start, stop point) can be set by user, maximum 250 sections
- Support G-mouse function via USB cable
- Vibration sensor for power management (auto power on or goes to sleep mode)
- Ultra low power consumption: 22 hours continuous use by 1100mAh battery
- Time to full recharge: within 3 hours

SPECIFICATIONS

GPS Features

Chipset	NEMERIX low power chipset
Frequency	L1, 1575.42MHz
C/A Code	1.023MHz chip rate
Channels	Supports 16 channels
Antenna (Internal)	Built-in low noise patch antenna
	External MMCX antenna port

Sensitivity

To – 152dBm Tracking, Superior Urban Canyon Performance

Time to First Fix (TTFF)

Cold Start	45 sec, average
Warm Start	38 sec, average
Hot Start	6 sec, average
Reacquisition	1 sec
Update Rate	1 Hz (max.)

Accuracy

Position	5m CEP (50%); 9m (90%)
Velocity	0.1m/sec, without SA
Time	±100ns synchronized to GPS time

Power

Built-in rechargeable 1100mAh Li-ion battery and 5V DC input

Operation Current	45mA (Typical)
Operation Time	22hrs, fully charged, in continuous mode
Sleeping Mode	Sustain more than 2000 hours
Charging Time	3.0hrs. (Typical)

Environmental Characteristics

Operating Temperature	- 20°C to + 60°C
Storage Temperature	- 20°C to + 85°C

Datum

WGS-84

Dynamic Conditions

Altitude	<18,000 m (60,000feet)
Velocity	<515 m/s (1000 knots)
Acceleration	<4G
Motional Jerk	20m/sec ³ max.

Interface

Communication Protocol: Communicate with host platform via Bluetooth (class 2) serial port profile

Bluetooth communication distance 10meters (Typical)

GPS Protocol: Default: NMEA-0183 - GGA, GSA, GSV, RMC

Data bit: 8, stop bit: 1 (Default)

Device Size and Weight

77.4 (L) X 46.3 (W) X 22.5 (H) mm

3.05 (L) X 1.82 (W) X 0.89 (H) inch

68g (battery included)

Accessories

Car charger (12V in, 5V output)

AC adaptor (5.3V output, 500mA)

Data Logger

Log 249,856 records in flash memory (4M bytes)

Log data: NMEA format (Longitude, Latitude, Speed, UTC, Tag)

Output data format: WGS84 2-degree transverse mercator

Mapping software: a. Google Earth b. TrackMaker c. *.csv (logdata.csv)

Log interval: by time (1sec~30mins) or distance (2~65535meters)

Vibration setting: disable/high/middle/low sensitivity

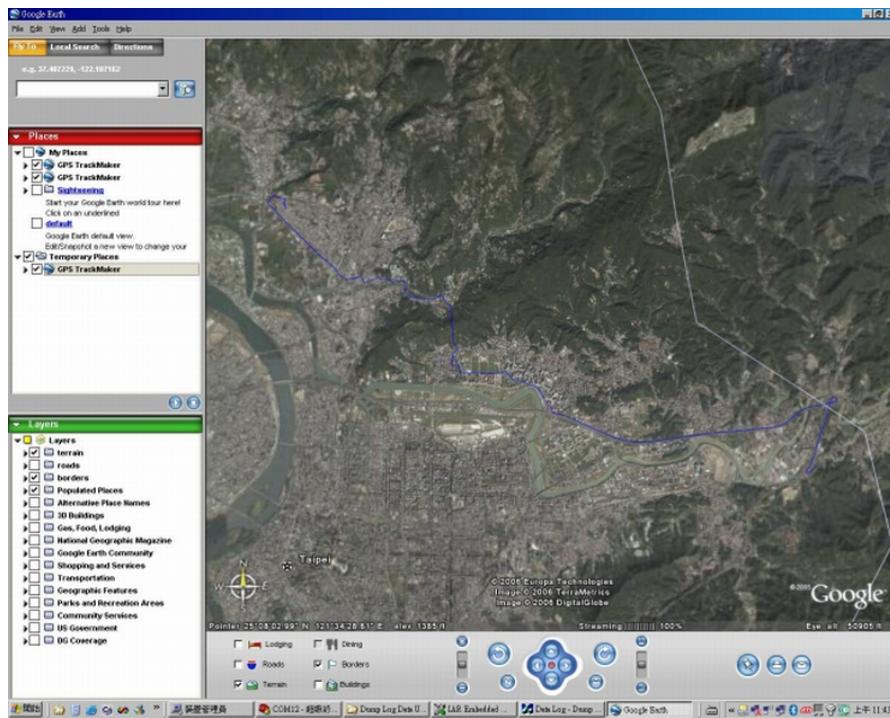
Goes to sleep mode if vehicle stays still for 15 minutes

Auto power on in 3 sec. when detecting vibration

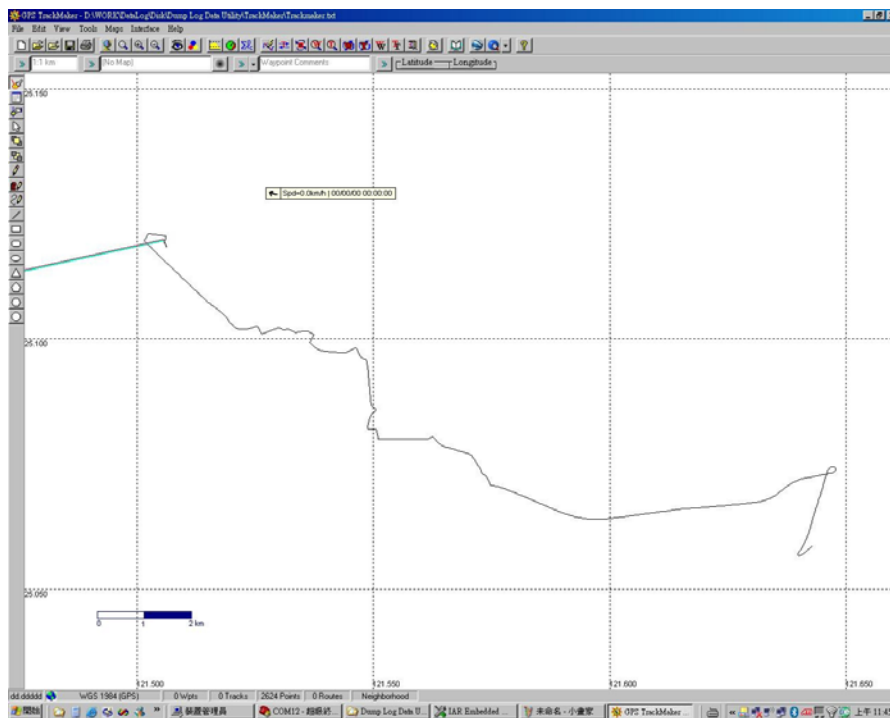
All specifications are subject to change without notice

Product Brief

BT-CD110



Example of Map loaded into Google Earth



Example of Map loaded into TrackMaker

REVISION HISTORY

Revision	Date	Comments
V7.06	07_July_2006	First release