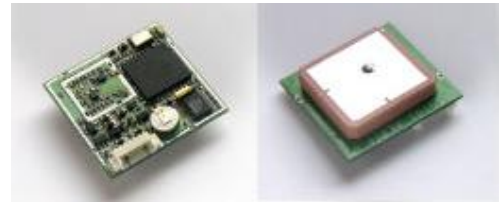


High Sensitivity GPS Module

- Built-in SiRFstarIII chipsets receivers give unparalleled GPS performance and precision. 20 parallel satellite-tracking channels for fast acquisition and reacquisition.
- Built-in Sony CXD2951GA-4 chipsets receivers give the better Time-To-First-Fix (TTFF) for positioning. 12 parallel satellite-tracking channels for fast acquisition and reacquisition.
- Built-in WAAS/EGNOS Demodulator.
- Low power consumption and ultra mini size only 32 x 32mm.
- Built-in rechargeable battery for memory and RTC backup
- Support NMEA0183 v2.2 data protocol.
- Enhanced algorithms providing superior navigation performance in urban, canyon and foliage environments.
- For Car Navigation, Marine Navigation, Fleet Management, AVL and Location-Based Services, Auto Pilot, Personal Navigation or touring devices, Tracking devices/systems and Mapping devices application.



SPECIFICATIONS

| | PMB-638 | PMB-238 |
|--------------------------|--|---|
| GPS IC | SiRFstarIII | Sony CXD2951GA-4 |
| Receiver: | Tracking upto 20 satellites L1, 1575.42MHz, C/Acode | Tracking upto 12 satellites L1, 1575.42MHz, C/Acode |
| Accuracy: | Position: 2DRMS Approximately 5m, WAAS support Velocity: 0.1 m/s without SA imposed. Time: $\pm 1 \mu\text{sec}$ | Position: 2DRMS Approximately 2m, WAAS SUPPORT. Velocity: 0.1 m/sec without SA imposed. Time: $\pm 1 \mu\text{sec}$ |
| Acquisition Time: | Cold Start: 42sec (Average) Warm Start: 38sec (Average) Hot Start: 1sec (Min.) | Cold start: 45sec (Average) Warm start: 35 sec (Average) Hot start: 2 sec (Min.) |
| Sensitivity: | Acquisition: -148dBm Tracking: -159 dBm | Acquisition: -139dBm Tracking: -152 dBm |
| Dynamics: | Altitude: 18000m (Max.) Velocity: 515m/s (Max.) Acceleration: $\pm 4g$ (Max.) | Altitude: 18,000m (Max.) Velocity: 500m/sec (Max.) Acceleration: $\pm 4g$ (Max.) |
| Navigation update rate : | Once per second | Once per second |
| Serial Port : | TTL | TTL |
| Baud Rate : | 4800 bps (Optional 9600, 19300, 38400 bps) | 4800 bps (optional 9600 bps, 19200bps, 38400bps) |
| Output Message: | NMEA0183 V2.2 GGA, GSV, GSA, RMC (optional VTG, GLL) | NMEA0183 V2.2 GGA, GSV, GSA, RMC, (optional VTG, GLL) |
| Datum: | WGS 84 | WGS 84 |
| Power supply : | DC 3.3V~5V | DC 3.3V~5V |
| Power Consumption : | Typical 65mA@5V | Typical 80mA@5V. |
| LED Function: | Power on/off and Navigation | Power on/off and Navigation |
| Operating Temp.: | -40°C~+85°C | -40°C~+85°C |
| Storage Temp.: | -40°C~+100°C | -40°C~+100°C |
| Humidity: | 5%~95% | 5%~95% |
| Antenna Type: | Built-in Patch antenna | Built-in Patch Antenna. |

