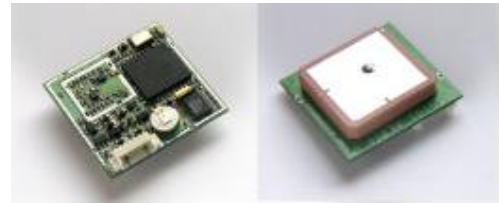


# High Sensitivity GPS Module

- 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-648	PMB-248
GPS IC	SiRFstarIII	SonyCXD2951GA-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: 0.1m/s without SA imposed. Time: ±1 μsec	Position: 2DRMS approximately 2m, WAAS SUPPORT. Velocity: 0.1m/sec without SA imposed. Time: ±1 μsec
Acquisition Time:	Cold Start: 42sec (Average) Warm Start: 38sec (Average) Hot Start: 1sec (Min.)	Cold start: 45sec (Average) Warm start: 35sec (Average) Hot start: 2sec (Min.)
Sensitivity:	Acquisition: -148dBm Tracking: -159dBm	Acquisition: -139dBm Tracking: -152 dBm
Dynamics:	Altitude: 18000m (Max.) Velocity: 515m/s (Max.) Acceleration: ±4g (Max.)	Altitude: 18,000m (Max.) Velocity: 500m/sec (Max.) Acceleration: ±4g (Max.)
Navigation update rate:	Once per second	Once per second
Serial Port :	TTL and RS-232	TTL and RS-232
Baud Rate:	4800 bps (Optional 9600, 19300, 38400 bps)	4800 bps (optional 9600 bps, 19200 bps, 38400 bps)
Output Message:	NMEA0183 V2.2 GGA, GSV, GSA, RMC (optional VTG, GLL)	NMEA0183 V2.2 GGA, GSV, GSA, RMC, (optional VTG, GLL)
Datum:	WGS84	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° ~ +85°C
Storage Temp.:	-40°C ~ +100°C	-40° ~ +100°C
Humidity:	5% ~ 95%	5% ~ 95%
Antenna Type:	Built-in Patch antenna	Built-in Patch Antenna.

