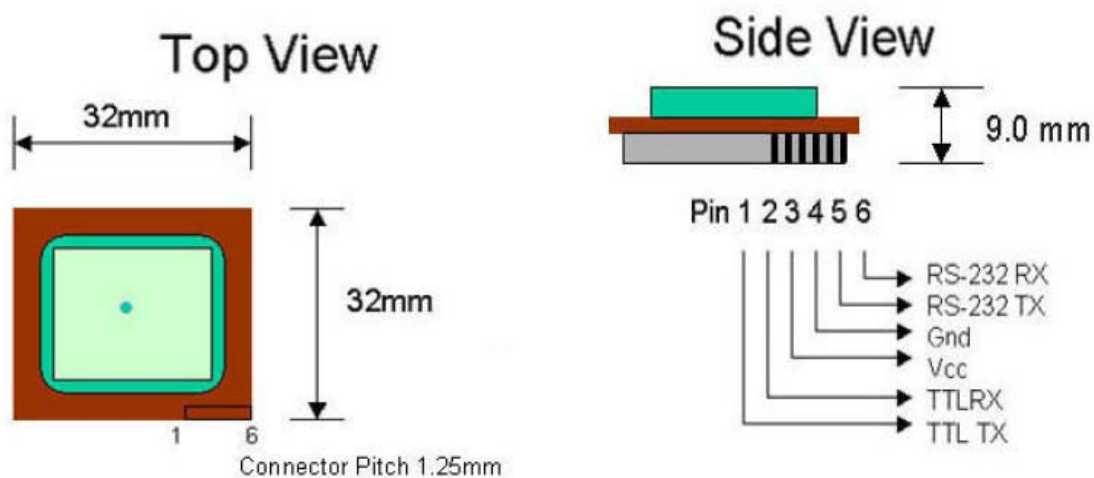# POLSTAR

PMB-648 GPS module

PMB-648 FEATURES

- Built-in SiRFstarIII chipsets receivers give unparalleled GPS performance and precision. 20 parallel satellite-tracking channels for fast acquisition and reacquisition.
- Built-in WAAS /EGNOS Demodulator.
- Low power consumption and ultra mini size only 32x32mm.
- Built-in rechargeable battery for backup 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.

PMB-648 Specifications

GPS IC	SiRFstar III
Receiver:	Tracking up to 20 satellites L1, 1575.42 MHz, C/A code
Accuracy:	Position: 2DRMS approximately 5m, WAAS support Velocity: 0.1 m/s without SA imposed Time: ±1µsec
Acquisition Time:	Cold Start: 42sec (Average) Warm Start: 38sec (Average) Hot Start: 1sec (Min.)
Sensitivity:	Acquisition: -148 dBm Tracking: -159 dBm
Dynamics:	Altitude: 18000m (Max.) Velocity: 515m/s (Max.) Acceleration: ±4g (Max.)
Navigation update rate :	Once per second (Min.)
Serial Port :	TTL, RS232 (Optional)
Baud Rate :	4800 bps (Optional 9600,19300,38400 bps)
Output Message:	NMEA0183 V2.2 GGA, GSV, GSA, RMC (optional VTG, GLL)
Datum:	WGS 84
Power supply :	VDC 3.3V ~ 5V
Power Consumption :	Typical 65mA @5VDC
LED Function:	Power on/off and Navigation
Operating Temp.:	-20℃~+70℃
Storage Temp.:	-30℃~+85℃
Humidity:	5%~95%
Antenna Type:	Built-in patch antenna