Mars-700S is a GPS Mouse receiver build-in well-known SiRF StarIII GPS chipset. **Mars-700S** provides customer high position, velocity and time accuracy performances as well as high sensitivity and tracking capabilities. Customers benefit from the strength of both companies.
Thanks to the low power consumption technology, the GPS-Mouse receiver is ideal for many portable applications such as PDA, Tablet PC, smart phone etc.

Features

- Built-in high performance SiRF Star III low power chipset.
- Current consumption 40mA
- 20 channels parallel.
- Average Cold Start in 42 seconds.
- -159 dBm sensitivity in tracking mode
- NMEA0183 compliant protocol
- Extreme fast TTFF at low signal level

Applications

- Automotive
- Personal/Portable Navigation (PDA)
- Geographic Surveying
- Sports and Recreation
- Marine Navigation
- Fleet Management
- AVL and Location-Based Services

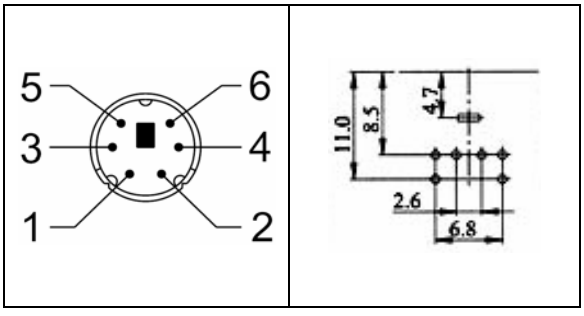
Specifications

General		Accuracy	
GPS Chip	SiRF Star III LP chipset	Position	
Frequency	L1, 1575.42MHz	10 meters, 2D RMS 7 meters 2D RMS, WAAS corrected 1-5 meters, DGPS corrected	
C/A Code	1.023MHz chip rate		0.1 m/sec
Channels	20 CH	Time	1ms synchronized to GPS time
		Datum	
		WGS-84	
Sensitivity		**Dynamic Conditions**	
To – 159Bm Tracking, Superior Urban Canyon Performance		Altitude	<18,000 m (60,000 feet)
Acquisition Rate		Velocity	<515 m/sec (1,000 knots)
Cold Start	42 sec, average	Acceleration	<4g
Warm Start	38 sec, average	Motional Jerk	<20 m/sec
Hot Start	6 sec, average	**GPS Protocol**	
Reacquisition	0.1sec, average	Default: NMEA-0183, GGA(1), GSA(1), GSV(1), RMC(1), Band rate 9600 bps, Data bit : 8, stop bit : 1	
Accuracy	Snap start 2 sec, average		
Power			
Operation Power	3.3VDC+10%		
Current Consumption	40mA	**Device Size**	
	3.3V		
Environmental			
Operating Temperature	- 10 ℃ to + 60 ℃	Accessories	No
Relative Humidity	5% to 95% non-condensing		

Hardware Interface

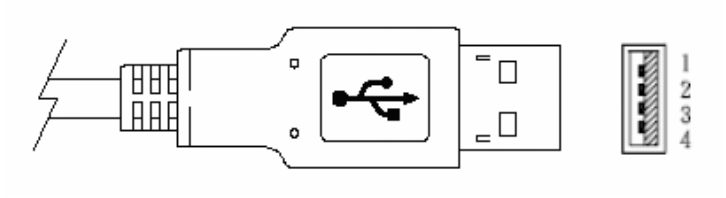
The Mars-700S includes an antenna in a unique style waterproof gadget. We can manufacture four kinds of connector cable to suit your demands.

- Pin Assignment of standard PS2 male Din Jack (figure 1)



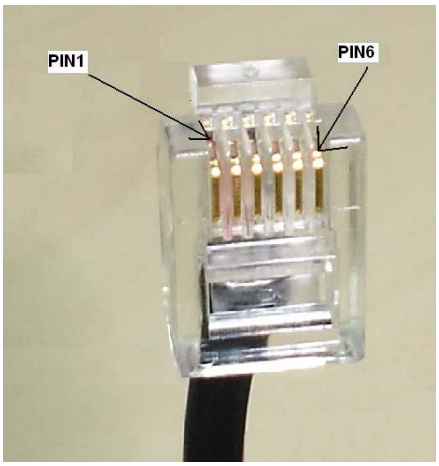
Pin	Signal
1	GND
2	+5V
3	N.C.(RS-232_Rx on demand)
4	TTL_RX
5	N.C.(RS-232_Tx on demand)
6	TTL_TX

- Pin Assignment of A Type USB connector (figure 2)



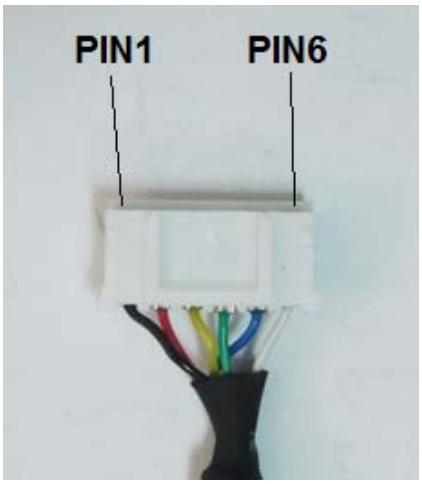
Pin	Signal
1	+5VDC
2	D－
3	D＋
4	GND

- Pin Assignment of RJ11 connector



Pin	**Signal**
PIN1	VCC 5V
PIN2	RX (RS232)
PIN3	TX (RS232)
PIN4	GND
PIN5	N.C.
PIN6	N.C.

- Pin Assignment of PHR connector



Pin	**Signal**
PIN1	VCC 5V
PIN2	RX (RS232)
PIN3	TX (RS232)
PIN4	GND
PIN5	N.C.
PIN6	N.C.