

GPS Mouse

Ct-GM451



Specifications Sheet V0.6

Features:

- SiRFStar IV single chipset
- (L) 41 x (W) 36 x (H) 15 mm
- Connector : PS2, RJ11, D-SUB 9, MOLEX

1. Introduction

Ct-GM451 is a GPS Mouse receiver build-in well-known SiRF StarIV GPS chipset. Ct-GM451 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

- 48 channel SiRF StarIV GSD4e positioning engine.
- Ultra high sensitivity to -163 dBm.
- SBAS (WAAS, MSAS, and EGNOS) support.
- Supports UART and RS232 interface.
- LED indicate location fix.
- Ultra low power consumption. <10mW required for TricklePower™ mode
- Active Jammer Remover: Removes in-band jammers up to 80 dB-Hz; Tracks up to 8 CW jammers
- Ultra miniature 29 x 29 mm dimension
- Operating temperature range: -40 to 85°C
- Connector : PS2 w/o lock(Standard) ,
PS2 w/lock (option), RJ11(option), D-SUB 9(option), MOLEX (option)
- Length : 2M(Standard), 5M(option)
- RoHS compliant (lead-free)
- Water proof (IPX6)

Applications

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

2. Specifications

Technical Specifications

FEATURE	ITEM	DESCRIPTION
GENERAL	GPS Chip	SiRF Star IV GSD4e chipset
	Frequency	L1, 1575.42MHz
	C/A Code	1.023 MHz chip rate
	Channels	48
ACCURACY	Position	3 meters CEP 2.5 meters CEP, DGPS corrected
	Time	1 ms synchronized to GPS time
Sensitivity	To -160Bm Tracking, Superior Urban Canyon Performance	
Datum	WGS-84	
Dynamic Conditions	Altitude	<18,000 m (60,000 feet)
	Velocity	<515 m/sec (1,000 knots)
	Acceleration	<4g
	Motional Jerk	<20 m/sec
Acquisition Rate	Cold Start	32 sec, average
	Cold Start (CGEE*)	15 sec, average
	Hot Start	No Support
	Reacquisition	<1 sec, average
Power	Operation Power	3.3V~5.0 VDC
	Current Consumption	45mA(Tracking) 42mA(Navigation)
GPS Protocol	Default	NMEA-0183 v3.0
	Band rate	9600 bps(default), 4800
	Data bit	8, stop bit : 1
Environmental	Operating Temperature	-40°C to +85°C
	Relative Humidity	5% to 95% non-condensing
Device Size	41.0x36.0x15.0 mm	
Water Proof	IPX6	

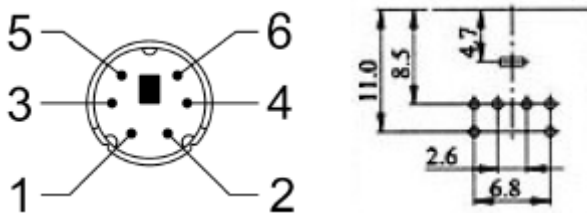
3. Hardware Interface

The Ct-GM451 includes an antenna in a unique style waterproof gadget. We can manufacture variable connector cable to suit your demands. Like PS2, RJ11, DB-9, MOLEX..etc. You provide me specification, we manufacture the cable and connector.



Standard PIN OUT

- Pin Assignment of standard PS2 male Din Jack



TTL

PIN	Signal
1	GND
2	VCC 3.3V or 5.0V
3	N.C.
4	TTL_TX
5	TTL_RX
6	N.C.

RS232

PIN	Signal
1	GND
2	VCC 5.0V
3	RS232_TX
4	N.C.
5	N.C.
6	RS232_RX

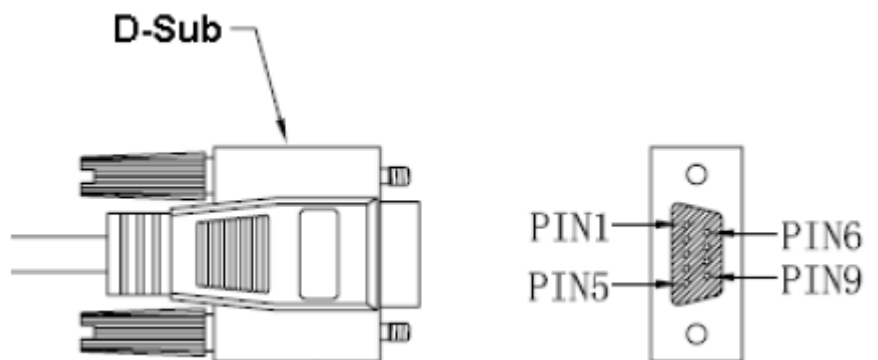
■ Pin Assignment of RJ11 connector (option)

PIN	Signal
1	VCC 5.0V
2	RX (RS232)
3	TX (RS232)
4	GND
5	N.C.
6	N.C.



■ Pin Assignment of D-SUB 9 PIN Female connector (option)

PIN	Signal
1	N.C.
2	TX (RS232)
3	RX (RS232)
4	N.C.
5	GND
6	VCC 5.0V
7	N.C.
8	N.C.
9	N.C.



■ Pin Assignment of 43025-0400 (option)

Ct-GM451 Compatible with Molex Part number : SDA 43025-0400

PIN	Signal
1	GND
2	TTL - RX
3	TTL - TX
4	3.3V~5.0V VDC

