

GPS Mouse

Ct-GM451-U8



Specifications Sheet V0.1

Features:

- U-blox 8 GPS chipset
- (L) 42 x (W) 37 x (H) 15 mm
- Connector : PS2, MOLEX, RJ11, M8

1.Introduction

Ct-GM451 U8 is a GPS Mouse receiver build-in well-known Ublox 8 GPS chipset. Ct-GM451 U8 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 Ct-GM451 U8 is ideal for many portable applications such as PDA, Tablet PC, smart phone, automotive etc.

Features

- 72 channel Ublox M8 positioning engine.
- Ultra high sensitivity to -167 dBm.
- GPS L1C/A, SBAS L1C/A, QZSS L1C/A and Galileo E1B/support.
- Supports GLONASS and is ready for Galileo.
- Supports UART, USB and RS232 interface.
- Up to 10 Hz update rate.
- LED indicate location fix.
- Ultra low power consumption.<10mW required for TricklePower™ mode
- Ultra miniature 29 x 29 mm dimension
- Operating temperature range: -40 to 85°C
- RoHS compliant (lead-free)
- Water proof (IPX6)

Applications

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

2.Specifications

Technical Specifications

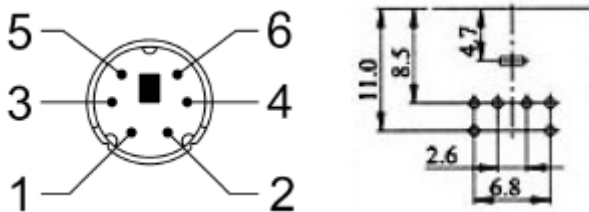
GENERAL	GPS Chip	U-blox 8 GPS Chip
	Frequency	L1, 1575.42MHz
	C/A Code	1.023 MHz chip rate
	Channels	72
Sensitivity	To -167Bm Tracking, Superior Urban Canyon Performance	
Acquisition Rate	Cold Start	26 sec, average
	Cold Start (CGEE*)	25 sec, average
	Hot Start	1 sec, average
	Aided Start	2sec, average
Power	Operation Power	3.3V~5.0 VDC
	Current Consumption	40mA (Tracking) 37mA (Navigation)
Environmental	Operating Temperature	-40°C to +80°C
	Relative Humidity	5% to 95% non-condensing
ACCURACY	Position	2.5 meters Autonomous 2 meters SBAS
	Time	1 ms synchronized to GPS time
Datum	WGS-84	
Dynamic Conditions	Altitude	<50,000 m max.
	Velocity	<500 m/sec (1,000 knots)
	Acceleration	<4g
GPS Protocol	Default: NMEA-0183 2.3 compatible with 3.0 Band rate 9600 bps(default), 4800	
Cable Length	2M(standard), 5M (option)	
Connector	PS2(standard), RJ11 (option), MOLEX (option), USB (option)....	
Device Size	42.0x37.0x15.0 mm	
Water Proof	IPX6	

3. Hardware Interface



Standard PIN OUT

- Pin Assignment of standard PS2 male Din Jack



TTL

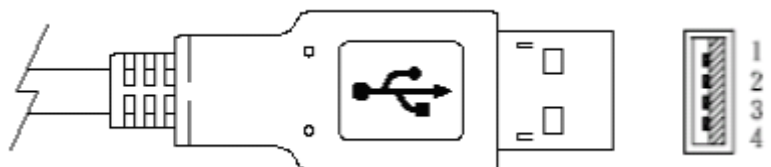
PIN	Signal
1	GND
2	VCC 5.0V
3	N.C.
4	TTL_RX
5	N.C.
6	TTL_TX

RS232

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

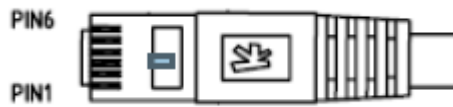
- Pin Assignment of A Type USB connector

PIN	Signal
1	+5.0 VDC
2	D -
3	D +
4	GND



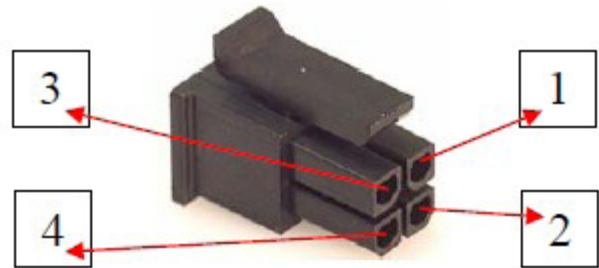
■ Pin Assignment of RJ11 connector

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



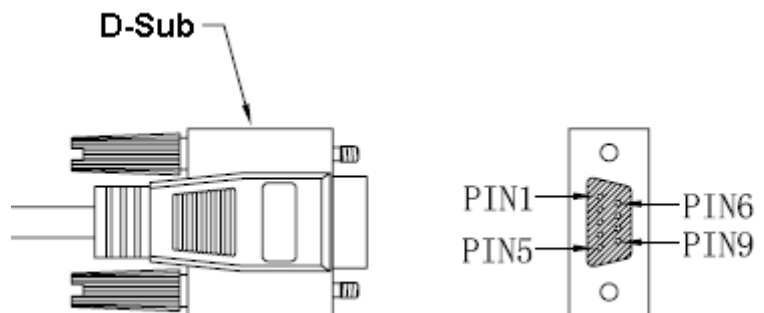
■ Pin Assignment of 43025-0400

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



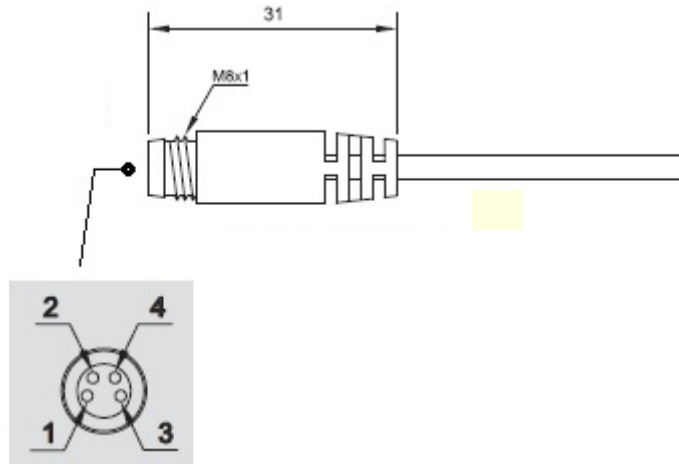
■ Pin Assignment of D-SUB 9 PIN Female connector

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



■ Pin Assignment of M8 4 PIN Male connector

PIN	Signal
1	RS232- RX
2	VCC
3	RS232 - TX
4	GND



■ Pin Assignment of phone jack 3pin

PIN	Signal
1	TX
2	Vcc
3	GND

