

Ultra-High Performance GNSS Mouse Receiver

Overview

Based on Telit SL869, an easy to use ultra-high performance, low power, industrial grade mouse type GNSS receiver.

The built-in SL869 enable the receiver delivering fast acquisitions and excellent tracking performance even in difficult environment. It supports various TTL/RS232/USB interfaces. NMEA update rate could be up to 10Hz

Features

- High performance: -165dBm+ tracking sensitivity
- Low power: 70mA at continuous tracking (RS232)
- GPS/GLONASS/QZSS support
- SBAS, RTCM, AGPS support
- SBAS(WAAS, EGNOS, MSAS, GAGAN) support
- 12 multi-tone active interference cancellers
- Indoor/outdoor multi-path detection & compensation
- Up to 10Hz update rate*
- Industrial operating temperature range: **-40 ~ 85°C**
- Dimension: 50mm x 37mm x 18mm
- Note - Some features need commands programmed by customers



Applications

- High-precision clock/timing
- Automatic vehicle location
- Vehicle navigation device
- Timing (GPS clock, FEMTO cell, traffic lights etc)

Receiver Performance Data

Receiver Type	GPS Module: Telit SL869 Frequency: L1 GPS/QZSS: 1575.42MHz GLONASS: 1598.0625-1605.375MHz C/A code: 1.023 MHz chip rate Tracking: 33 /acquisition: 99
Horizontal Position Accuracy	< 3.0m (Autonomous) < 2.5m (WAAS) (CEP, 50% 24hr static, -130dBm)
Velocity Accuracy	< 0.1 m/s (autonomous) < 0.05 m/s (SBAS)
PPS	±10ns RMS (1PPS output)
Time To First Fix	Autonomous
Hot start	<1sec
Warm start	<34sec
Cold start	<35sec
Sensitivity	-148dBm (acquisition) -165dBm (tracking)
(Autonomous)	-163dBm (reacquisition, hot start)

Update Rate	Default 1Hz, max. 10Hz,
Max. Altitude	18,000 m
Max. Velocity	<1,852 km/hr
Protocol Support	NMEA 0183 v4.1, MTK NMEA UART:4800/9600(default) /38400/115200 bps N,8,1; GGA, GLL, GSA, GSV, RMC, VTG
SBAS Support	WAAS, EGNOS, MSAS, GAGAN

Other Data

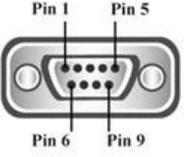
Cable Length	1.5m for USB 3m for RS232 <1m for TTL
Dimension	36 x 42 x 15 (mm)

Electrical Data

Power Supply	3.3 or 3.6 ~5.5 VDC
Power Consumption	70 mA/average tracking 80 mA/average acquisition

Environmental Data

Operating temperature	-40 ~ 85°C (battery: -20 ~ 60°C)
Storage temperature	-40 ~ 85°C(battery: -20 ~ 60°C)
Operating humidity	5% ~ 95% non-condensing

	GL-MOUSE-T	GL-MOUSE-R	GL-MOUSE-U	GL-MOUSE-6MF	GL-MOUSE-DB9M
					
					
Pin No	6way mouse	6way mouse	USB Type A	6 pin Micro-Fit	9pin Male DB9
1	GND	GND	VDD 5V	RX-CMOS	VDD 5V
2	VCC	VCC	D-	TX-CMOS	TX-RS232
3	TXD-TTL	TXD-TTL	D+	GND	RX-RS232
4	NC	RX-RS232	GND	VCC	NC
5	NC	TX-RS232		Backup	GND
6	RXD-TTL	RXD-TTL		PPS	NC
7					NC
8					NC
9					NC

*H/W (connector, cable length etc) or S/W (baud rate, sentence etc.) can all be customized upon request.

* This document is subject to change without notice.