e-survey

M1G2

HEADING AND NAVIGATION GNSS RECEIVER

The eSurvey M1G2, as a heading GNSS receiver, is suitable for monitoring, machine control, and CORS reference station. It owns rich data streams, including radio, serial port, Bluetooth, Wi-Fi, and 4G network, so you can send and receive data through multiple methods, which offers more communication possibilities. With any phone, tablet, or PC, you can enjoy a convenient remote connection to the web user interface, including viewing position status, configuring the device, downloading data, and updating firmware.

GNSS Receiver

Dual Antenna: Heading and Navigation

Connect positioning antenna and heading antenna to the M1G2 to output heading information and be used in scenarios with heading demands.

Internal Radio

The M1G2 has internal radio and supports Satel, PCC, TrimTalk, Trimark III, South, and HiTarget radio protocols, ensuring that it can work properly even in bad network conditions.

Richer Data Interface: Making Versatile Applications Possible

Enjoy multiple data interfaces, such as RS232/485 serial port, 1PPS, USB, event to various applications etc, to conveniently facilitate synchronization with other devices

Rich Wireless Communication

The M1G2 supports WIFI, Bluetooth, Ethernet, and SIM cards. Users can send or receive data through any method.

Suitable for Base and Rover

Its lightweight design makes it possible to set up the M1G2 as a rover or base station for different applications.

Rugged Design: Designed for Harsh Environments

Drop it from a height of 1.5 m without any damage and enjoy a dustproof and waterproof rating of IP67 to use it in all harsh vibration environments, such as vehicles and aviation, due to its simple and modular internal structure design.

Rugged Design

The main body of the M1G2 is made of Aluminum shell which has strong shock and vibration resistance. IP67 certification ensures operation in variety of tough environments.

Website

Social media

Product Specification

M1G2

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GNSS		
Satellites tracking	GPS	L1CA, L2P (Y), L2C, L5
	BDS	B1I, B2I, B3I
	GLONASS	L1, L2
	GALILEO	E1, E5a, E5b
	QZSS	L1, L2, L5
	SBAS [1]	L1, L5
Channels		1408
Signal reacquisition		< 1 second
Cold Start		< 1 second
Warm Start		< 60 seconds
Hot Start		< 30 seconds
Initialization reliability		< 10 seconds
Update Rate		> 99.9%
Operation system		Linux
Internal Memory		8 GB
External memory		Support SD card up tp 32 GB

Performance	
RTK	■ H: 8 mm + 1 ppm ■ V: 15 mm + 1 ppm
DGPS	■ H: 0.4 m ■ V: 0.8 m
Heading	0.2°@1.0 m Baseline
1PPS	20 ns

Power Supply	
Power	2-pin DC in
Power Voltage	10 - 28 V dc

Internet Modem	
Support Band	Global GSM, WCDMA, LTE

Internal Radio	
Type	TX and RX
Frequency range	■ 410 - 470 MHz ■ 902.4 - 928 MHz
Channel spacing	12.5 KHz / 25 KHz
Emitting power	1 W
Operating range	■ 3 - 5 km typically ■ 10 km with optional conditions
Protocol	Satel, PCC, TrimTalk, TrimMark III, South, HiTarget

Communication	
Bluetooth	BT5.0 + RDR, compatible with LE
Wi-Fi	802.11 b/g/n
Ethernet	Support
Port	■ 2-pin, DC in ■ GNSS TNC female x 2 ■ LTE, SMA female ■ UHF ■ Nano SIM ■ Micro SD card ■ DB26: RS485 x 2 RS232 Mini USB (support OTG) 1 PPS SMA female Event SMA female RJ45 Ethernet
Baud rate	4800 - 460800
WEB UI	Support
NMEA Output	NMEA0183
Correction Data	RTCM V3.X, RTCM2, CMR
Recording Format	Binary, RINEX, BINEX
Recording Interval	■ 2s, 10s, 15s,30s, 60s ■ 1 Hz, 2 Hz, 5 Hz, 10 Hz, 20 Hz
Data Stream	■ Bluetooth ■ Serial port x 3 ■ Ntrip sever stream x 4 ■ Ntrip Caster stream x1 ■ Ntrip client stream x 1 ■ Socket (TCP/UDP) stream x5
FTP Function	■ FTP server ■ FTP client (FTP push)
NTP Function	Support
Alerts	E-mail , SMS
Others	DDNS, SNMPD, firewall, VPN

Physical	
Dimension	150 mm x 105 mm x 34 mm
Weight	550 g
Indicators	Heading, Radio, Cellular, WIFI, Bluetooth, Satellite, Power
Operation temperature	-30°C - +65°C
Storage trmperature	-40°C - +80°C
Humidity	Up to 95%
Shock	Survive a 1.5 m drop on concrete floor
Water/Dust Proof	IP67
Maximum speed	1854 km/h (1000 kts)

1.SBAS supports WAAS, EGNOS, GAGAN, SDCM and MSAS.

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