GNSS Receiver
eGPS M5

An All-In-One GNSS Solution.

eGPS M5

Simplicity, Speed & Accuracy All In One Unit

The eGPS M5 GNSS receiver is an easy-to-use GNSS solution for increasing your efficiency and productivity out in the field.

Full GNSS RTK Receiver
The eGPS M5 is a reliable 624 channel multi-constellation GNSS receiver with an on-board UHF radio and 4G modem. Fast signals tracking and quick RTK fixed solution allow you to get more done in less time.

Versatile and Flexible
The eGPS M5 is easy to configure and deploy for a variety of survey tasks. The preset survey modes are easy to select or switch directly on the receiver. Your favorite GNSS RTK survey mode is always saved and starts automatically when the receiver is powered on. Save on unnecessary setup time, and let the M5 do the work for you.

Rugged and Compact
The eGPS M5 is built tough to work for you. With its compact and rugged build, the M5 is designed to maximize its performance on challenging sites and in adverse weather.

Uninterrupted Operation
Dual hot-swappable batteries permit a full day of fieldwork using RTK network services. Now you can focus on your mission without worrying about downtime from charging or power loss.

Highlights
- 624 channel multi-constellation receiver
- Integrated 4G modem
- Integrated NTRIP client, internal Rx/Tx UHF, and external controller modes
- 8GB internal memory
- Dual hot-swappable batteries
- IP67 dust and waterproof

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GNSS Specifications[1]

624 channels with simultaneously tracked satellite signals[2]

GPS	L1, L2, L2C, L5
GLONASS	L1, L2
BeiDou	B1, B2[3], B3
Galileo	E1, E5A, E5B
SBAS	L1 (L-Band capable)
QZSS	L1, L2, L5

Performance Specifications[4]

Real-Time Kinematics (RTK)

Horizontal	8 mm + 1 ppm RMS
Vertical	15 mm + 1 ppm RMS
Initialization Time	< 10 s
Initialization Reliability	> 99.9%

Post Processing Kinematics (PPK)

Horizontal	3 mm + 0.5 ppm RMS
Vertical	3.5 mm + 0.5 ppm RMS

Static of High Precision

Horizontal	3 mm + 0.5 ppm RMS
Vertical	3.5 mm + 0.5 ppm RMS

Post Processing Static and Fast Static

Horizontal	3 mm + 0.5 ppm RMS
Vertical	3.5 mm + 0.5 ppm RMS

Code Differential

Horizontal	0.4 m RMS
Vertical	0.8 m RMS

Autonomous

Horizontal	1.5 m RMS
Vertical	3.0 m RMS
Positioning Rate	1 Hz, 2 Hz, 5 Hz and 10 Hz, up to 20 Hz

Time to First Fix[5]

Cold Start	< 45 s
Hot Start	< 10 s
Signal Re-Acquisition	< 1 s

Physical Specifications

Size (L x W x H)	5.5 in x 5.1 in x 4.2 in (140 mm x 130 mm x 106 mm)
Weight	1.29 kg (2.8 lb)
Tilt Sensor	E-Bubble leveling
Front Panel	6 status LED

Specifications are subject to change without notice.

Communication

Network Modem	Integrated 4G modem LTE (FDD): B1, B2, B3, B4, B5, B7, B8, B20 | DC-HSPA+/HSPA+/HSPA/UMTS: B1, B2, B5, B8 | EDGE/GPRS/GSM 850/900/1800/1900 MHz
WiFi	802.11 b/g/n, access point mode
Bluetooth	v4.1
Ports	1 x 7-pin LEMO port (external power and RS-232) 1 x Mini-USB (data download, firmware update) 1 x UHF antenna port (TNC female)
UHF Radio	Internal Rx/Tx: 410-470 MHz Transmit Power: 0.5 W to 2 W Protocol: CHC, Transparent, TT450 Link Rate: 9600 bps to 19200 bps Range: Typical 3 km to 5 km
Data Formats	RTCM2.x, RTCM3.x, CMR input/output HCN, HRC, RINEX 2.11, 3.02 NMEA0183 output NTRIP Client, NTRIP Caster
Data Storage	8 GB internal memory

Environment

Operating Temperature	-40 °C to +65 °C (-40 °F to +149 °F)
Storage Temperature	-40 °C to +75 °C (-40 °F to +167 °F)
Humidity	100% condensation
Waterproof & Dustproof	IP67 - protected from temporary immersion depth of 1 m
Drop	2 m protection

Electrical Specifications

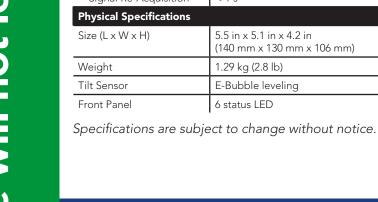|	
Power Consumption	4.2 W (depending on user settings)
Li-ion Battery Capacity	2 x 3400 mAh, 7.4 V
Operating Time on Internal Battery[6]	
UHF Receive/Transmit (0.5 W)	6 h to 8 h
Cellular Receive Only	Up to 10 h
Static	Up to 12 h
External Power Input	9 V DC to 36 V DC

[1] Compliant, but subject to availability of BDS ICD and Galileo commercial service definition. GLONASS L3, BDS B3 and Galileo E6 will be provided through future firmware upgrade.
[2] Reception is dependent upon firmware versions and licensed features.
[3] Includes BeiDou satellites 1-14.
[4] Accuracy and reliability are determined under open sky, free of multipaths, optimal GNSS geometry and atmospheric condition. Performances assume minimum of 5 satellites, follow up of recommended general GPS practices.
[5] Typical observed values.
[6] Battery life is subject to operating temperature.

We will not let you fail.