

COMPACT. RUGGED. PRECISE.



G60

GNSS RECEIVER

G60 is a compact and lightweight GNSS receiver built for fast, accurate and reliable geodetic surveying.

Its new-generation measurement engine, Linux OS, tilt measurement and integrated connectivity deliver professional performance in a rugged magnesium-alloy design, with support for both internal radio and external wired radio solutions, such as the TopoGEOS TRU35.



BDS, GPS, GLONASS, GALILEO, QZSS, SBAS.



Centimeter level positioning.



High-capacity, removable hot-swappable batteries for uninterrupted field performance.



Accurate tilt measurement, maintaining positioning accuracy better than 2 cm within a 30° tilt range.



Support 4G, Bluetooth and Wi-Fi, and work more flexibly.



Rugged magnesium-alloy body with IP67 protection for reliable performance.

TECHNICAL FEATURES

RECEIVER		INTERNAL MODEM	
Satellite signals tracked	GPS: L1 C/A, L1C, L2P, L2C, L5	GSM integrated	EG25-G
	GLONASS: L1 C/A, L2C, L2P, L5, L1, L2, L3	Band	LTE FDD: B1/B2/B3/B4/B5/B7/B8/B12/ B13/B18/B19/B20/B25/B26/B28 LTE TDD: B38/B39/B40/B41 UMTS: B1/B2/B4/B5/B6/B8/B19 GSM: B2/B3/B5/B8 Nano SIM card
	BEIDOU: B1, B2, B3 (B1I, B2I, B3I, B1C, B2a, B2b)		
	GALILEO: E1, E5a, E5b, E6		
	QZSS: L1 C/A, L1C, L2C, L5, L6, L1, L2, L5		
	IRNSS: L5		
	SBAS: L1, L5		
PPP	PPP B2b HA	COMMUNICATION	
Channels	1408	I/O Connectors	7-pin Lemo (RS232) and 5-pin Lemo interfaces. Multifunction cable with USB interface for PC connection
Position Rate	5Hz		
Signal Reacquisition	< 1 s	Bluetooth	2.1 + EDR, V5.0
RTK Signal Initialization	Typically < 10 sec	Wi-Fi	802.11 a/b/g/n/ac
Hot Start	Typically < 15 s	Web UI	To upgrade the software, manage the status and settings, data download, etc. via smartphone, tablet or other electronic device with Wi-Fi capability
Initialization Reliability	> 99.9 %		
Internal Memory	8 GB		
OS	Linux	Reference outputs	RTCM2.3, RTCM3.0, RTCM3.2 MSM, CMR, CMR+, DGPS
Micro SD Card	Expansion slot up to 32 GB		
Tilt sensor	E-bubble and IMU 2 cm 30° to 4 cm 60°	Navigation outputs	NMEA 0183
POSITIONING ¹		POWER SUPPLY	
HIGH PRECISION STATIC SURVEYING		Battery	2 rechargeable and replaceable 7.2 V – 3.400 mAh Intelligent lithium batteries
Horizontal	3 mm + 0.1 ppm RMS		
Vertical	3.5 mm + 0.4 ppm RMS	Voltage	9 to 28 V DC external power input with over-voltage protection (5-pin Lemo)
REAL TIME KINEMATIC (< 30 Km) WITH RADIO MODEM AND NETWORK RTK ²			
DIFFERENTIAL POSITIONING		Working Time	Up to 12 hours (2 batteries hot swap)
Horizontal	0.25 m RMS	Charge Time	Typically 4 hours
Vertical	0.45 m RMS	PHYSICAL SPECIFICATION	
Fixed RTK Horizontal	5 mm + 0.5 ppm RMS	Dimensions	Ø 157 mm x 76 mm
Fixed RTK Vertical	10 mm + 0.5 ppm RMS	Weight	1.19 Kg (with one battery) 1.30 Kg (with two batteries)
PPP Accuracy	< 20 cm RMS	Operating Temperature	-40°C to 65°C (-40°F to 149°F)
SBAS Accuracy ³	< 60 cm RMS	Storage Temperature	-40°C to 80°C (-40°F to 176°F)
INTEGRATED GNSS ANTENNA		Waterproof/Dustproof	IP67 IP68 ⁵
High accuracy multi-constellation antenna, zero phase center, with internal multipath suppressive board		MIL-STD	MIL-STD-810 F/H
INTERNAL RADIO		Shock Resistance	Designed to endure to a 2 m pole drop on hardwood floor with no damage
Type	Tx – Rx 1W	Vibration	Vibration resistant
Frequency Range	403 - 475 MHz 902.4 – 928 MHz ⁵ (optional)		
Channel Spacing	12.5 KHz / 25 KHz		
Range	3-4 Km in urban environment Up to 10 Km with optimal conditions ⁶		

Specifications are subject to change without notice.

1. Accuracy and reliability are generally subject to satellite geometry (DOPs), multipath, atmospheric conditions and obstructions. In static mode they are subject even to occupation times: the longer is the Baseline, the longer must be the occupation time.
2. Network RTK precision depends on the network performances and are referenced to the closest physical base station.
3. Depends on SBAS system performance.
4. On request when ordering.
5. Varies with the operating environment and with electromagnetic pollution.