

# ComNav<sup>®</sup>

New



## G9 GNSS Smart Antenna Survey Grade – 1 cm Capable

### Precise Positioning RTK Receiver Base Station or Rover

- Rover suitable for AGVs, survey, machine control, construction, mining, agricultural, geomatics and other precision position applications
- Multi-frequency Multi-GNSS Constellations
- GPS, GLONASS, BeiDou, Galileo and SBAS
- Built-in UHF SATEL radio to Rx/Tx corrections
- Real Time Kinematics (RTK) data forwarding
- Built-in Wi-Fi and Bluetooth communication
- Operates as a Base Station for other RTK Rovers
- Built-in Li-Ion battery - provides up to 12 hours battery life
- Built-in 4G cellular network modem - global coverage
- Rugged marine grade, double sealed to IP67 rating
- Shock and vibration resistant to MIL specs
- Excellent for Static and Dynamic applications
- Secure web interface for desktop & mobile applications
- Built-in e-bubble leveling
- Data updates selectable 1 to 50 Hz
- Built-in 32 GB memory
- Built-in mini USB port
- NMEA 0183 interface
- FCC and CE certified
- 2 year warranty
- Worldwide service



### Mining



### Agriculture



### GNSS CAPABILITIES

Multi-frequency GNSS all in view simultaneously tracked satellites

<b>GPS:</b>	L1C/A, L2C, L2E, L5
<b>GLONASS:</b>	L1C/A, L1P, L2C/A, L2P, L3
<b>Galileo:</b>	E1 E5A, E5B
<b>BDS:</b>	B1, B2
<b>SBAS:</b>	MSAS, WAAS, EGNOS, GAGAN

### GNSS PERFORMANCE (RMS) \*

	Horizontal	Vertical
<b>RTK:</b>	8 mm + 1 ppm	15 mm + 1 ppm
<b>Initialization Time:</b>	< 5 s	
<b>Initialization Reliability:</b>	> 99.9%	
<b>Post Processing Static:</b>	2.5 mm + 0.5 ppm	5 mm + 0.5 ppm
	@ Baseline length ≤ 300 km	
<b>Initialization Time:</b>	< 10 s	
<b>Initialization Reliability:</b>	> 99.9%	
<b>L-Band Performance:</b>	0.08 m	0.15 m
<b>SBAS (WAAS):</b>	0.3 m	0.5 m

### MECHANICAL

<b>Dimensions (L x W x H):</b>	16 cm x 15.8 cm x 9.6 cm
	6.3 in x 6.2 in x 3.8 in
<b>Weight:</b>	1.5 kg (3.4 lb) with battery

### ENVIRONMENTAL

<b>Operating Temp:</b>	-40°C to 65°C (-40°F to 149°F)
<b>Storage Temp:</b>	-40°C to 80°C (-40°F to 176°F)
<b>Humidity:</b>	Up to 100%
<b>Waterproof / Dustproof:</b>	IP67
<b>Shock Resistance:</b>	2 m (6.56 ft) fall onto concrete
<b>Vibration:</b>	Mil-STD-810G
<b>Tilt Sensor:</b>	e-Bubble leveling

### CERTIFICATIONS AND CALIBRATIONS

FCC Part 15 (class B Device), FCC Part 22, 24, 90;  
CE IEC60945, Bluetooth EPL, IGS and NGS Antenna  
calibration MIL-STD-810G

### COMMUNICATIONS AND DATA RECORDING

<b>Connectors I/O:</b>	2 x 7-pin LEMO (external power, RS-232) 1 x mini-USB (data download, update) 1 x 2-pin LEMO (quick-charge) 1 x TNC antenna connector (internal radio)
<b>Data Recording:</b>	G9H Handheld Data Collector (optional), Web UI Data Collection Management Software via smart phone (Android optional)
<b>Network Modem:</b>	4G Internal modem cellular global coverage 4G LTE: FDD Band (1, 2, 3, 4, 5, 7, 8, 20) 3G Tri Band UMTS: (1, 2, 5, 8) 2G Quad Band GSM/GPRS/EDGE (800/900/1800/1900 MHz)
<b>Bluetooth®:</b>	Internal multimode system compatible with Android, Windows Mobile and Windows desktop OS
<b>Wi-Fi:</b>	Internal integrated module w antenna 802.11 b/g/n, access point mode
<b>UHF SATEL Radio:**</b>	Frequency range, 410 - 470 MHz Emitting power, 0.5W to 2 W Protocol: Trimble, Pacific Crest, etc. Range: 5 km optimal conditions
<b>Data Update Frequency:</b>	Selectable 1, 2, 5, 10, 20, 50 Hz
<b>Data Storage:</b>	Internal 32 GB high speed memory
<b>Protocols:</b>	NMEA 0183, GSOE, CMR... over TCP/IP or UDP RTCM 2.x, RTCM 3.x, input and output CMR, CMR+, SCMRX input and output HCN, HRC, and RINEX static formats NTRIP Client, NTRIP Caster Power
<b>Input Voltage:</b>	12 to 36 VDC
<b>Power Consumption:</b>	3.2 W (typical dep. on user settings)
<b>Li-Ion Battery Capacity:</b>	10,200 mAh, 7.4 V
<b>Charge Time:</b>	2.5 h
<b>Operating Time:***</b>	RTK UHF Base: Up to 7 h RTK Rover: Up to 12 h Static: Up to 12 h

\* Accuracy and reliability specifications may be effected by multipath, satellite geometry and atmospheric conditions. Performance assumes minimum of 5 satellites, coupled with follow up of recommended general GNSS practices.  
\*\* UHF type approvals are country specific  
\*\*\* Operating time varies based on temperature

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Specifications subject to change without notice

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