

PENTAX

Positioning Systems

G6 Series

Precision Satellite Surveying
with Wireless Communications

G6Ti | G6Ni

GPS | GLONASS | BEIDOU | SBAS | GALILEO



- + Compact and durable metal housing
- + Better dust and weather resistance (IP67)
- + Equipped with TILT sensor that works as an electric bubble
- + WiFi for direct communication with web browser for e.g. downloading data, firmware upgrades and communication between receiver and controller

TI Asahi Co.,Ltd
Aiming at the future together!



GNSS SPECIFICATIONS

Model	G6Ti	G6Ni
Channel Configuration	220 channels (dual frequency) for GPS, GLONASS, Galileo, Beidou and SBAS	555 channels (dual frequency) for GPS, GLONASS, Beidou and SBAS
Receiver Board	Trimble BD930	NovAtel 719
Signal Tracking	GPS L1 C/A, L2E, L2C, L5	L1 C/A, L1C, L2C, L2P, L5
	GLONASS L1 C/A, L2C/A, L3CDMA	L1 C/A, L2C, L2P, L3, L5
	BEIDOU B1 / B2	B1, B2, B3
	Galileo E1, E5A, E5B, E5AltBOC	E1, E5 AltBOC, E5a, E5b, E6
	QZSS L1 C/A, L1 SAIF, L2C, L5	L1 C/A, L1C, L2C, L5, L6
	SBAS L1 C/A, L5	L1, L5
	NavIC (IRNSS) (*1)	L5
	L-Band	up to 3 Channels
Position Accuracy	Horizontal / Vertical	
	SBAS (WAAS, GAGAN etc.) 0.5 m / 0.85 m	
	DGPS 0.25 m + 1 ppm / 0.5 m + 1 ppm	
RTK Performance	Horizontal Accuracy 0.008 m + 1 ppm	0.010 m + 1 ppm
	Vertical Accuracy 0.015 m + 1 ppm	0.020 m + 1 ppm
	Average Time to Work Typ. < 10 sec.	
	Availability/Initialization Reliability > 99.9%	
Static Performance	Horizontal Accuracy (Long time observation) (*2)	3 mm + 0.1 ppm
	Vertical Accuracy (Long time observation) (*2)	3.5 mm + 0.4 ppm
	Horizontal Accuracy	2.5 mm + 0.5 ppm
	Vertical Accuracy	5 mm + 0.5 ppm
PPP (Precision Point Positioning)	Horizontal 40mm with TerraStarC (optional)	
Ports	Lemo 5-pin, external radio and power supply Lemo 7-pin, serial port and USB	
Internal Radio Modem	Frequency	TRM101
	Output Power	0.5 W / 1 W
GSM/GPRS Modem	Gemalto PHS8-P UMTS / HSPA+ / GSM / GPRS / EDGE (supporting NTRIP)	
Power	Internal Battery	3,350 mAh / 7.4V x2
	Current Drain	0.35A / 12V 1.25A / 12V max.
	Battery Running Time	Approx. 12 hr: Rover, 10 hr: Base with 2 Batteries
Weight	1.1 kg with 2 batteries	
Dimensions	Ø 130 mm x H 100 mm	
Environmental Specifications	Operating Temperature	-30 °C to +65 °C
	Storage Temperature	-30 °C to +65 °C
	Shock/Drop	2 m
Velocity Accuracy	Standalone	0.007 m/sec, 0.020 m/sec
Data Output	Raw Data	up to 20 Hz
	NMEA Data	1 Hz, 2 Hz, 5 Hz, 10 Hz, 20 Hz
	RTCM Ver 2.1, 2.2, 2.3, 3.0, 3.1, 3.2 CMR, CMR+, sCMRx	
Time to First Fix	Cold Start	< 45 sec
	Warm Start	< 50 sec
	After power-on < 30 sec	After power-on < 35 sec
	Re-acquisition < 2 sec	Re-acquisition < 1 sec
WiFi	IEEE 802.11b/g	
Tilt Sensor	Electric Bubble Range 30° < 30mm	
Bluetooth	Class 2	
Memory	Internal 4 GB and MicroSD 4 GB	
RoHS	Complied	
Waterproofing	IP67	
Certification	CE	
Standard Accessories	2 x Li-Ion rechargeable battery pack Battery charger + AC Adapter UHF radio antenna (longer one) 5/8 inch screw adapter Lemo 7-pin communication cable CD (contains manual and data conversion software)	

*1 Hardware ready

*2 Performance, Accuracy and Reliability are dependent upon various factors including satellite geometry, number of satellites, ionospheric conditions, atmospheric conditions and multipath.

PENTAX Positioning System is dedicated to providing customers with first class positioning system products and freedom of choice. We have carefully designed high-quality products to meet the needs of today's surveyors based on the experience of many years involved in instrument design and construction. Our engineers have been involved in Survey products since the beginning of the Satellite Surveying Era. We are committed to ease of use, a low cost of ownership and flexibility to accommodate different working environments. Our close partners are carefully chosen and are committed to these values as we are.

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The CE marking assures that this product complies with the requirements of the EC directive for safety.



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