

**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
<b>Channel Configuration</b>		220 channels (dual frequency) for GPS, GLONASS, Galileo, Beidou and SBAS	555 channels (dual frequency) for GPS, GLONASS, Beidou and SBAS
<b>Receiver Board</b>		Trimble BD930	NovAtel 719
<b>Signal Tracking</b>	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
<b>Position Accuracy</b>		Horizontal / Vertical	
	SBAS (WAAS, GAGAN etc.)	0.5 m / 0.85 m	
	DGPS	0.25 m + 1 ppm / 0.5 m + 1 ppm	
<b>RTK Performance</b>	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%	
<b>Static Performance</b>	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	
<b>PPP (Precision Point Positioning)</b>		Horizontal 40mm with TerraStarC (optional)	
<b>Ports</b>		Lemo 5-pin, external radio and power supply	
		Lemo 7-pin, serial port and USB	
<b>Internal Radio Modem</b>	Frequency	TRM101	
	Output Power	0.5 W / 1 W	
<b>GSM/GPRS Modem</b>		Gemalto PHS8-P	
		UMTS / HSPA+ / GSM / GPRS / EDGE (supporting NTRIP)	
<b>Power</b>	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	
<b>Weight</b>		1.1 kg with 2 batteries	
<b>Dimensions</b>		Ø 130 mm x H 100 mm	
<b>Environmental Specifications</b>	Operating Temperature	-30 °C to +65 °C	
	Storage Temperature	-30 °C to +65 °C	
	Shock/Drop	2 m	
<b>Velocity Accuracy</b>	Standalone	0.007 m/sec, 0.020 m/sec	0.03 m/s RMS
<b>Data Output</b>	Raw Data	up to 20 Hz	up to 5 Hz (20 Hz optional)
	NMEA Data	1 Hz, 2 Hz, 5 Hz, 10 Hz, 20 Hz	Default 5 Hz
		RTCM Ver 2.1, 2.2, 2.3, 3.0, 3.1, 3.2	
		CMR, CMR+, sCMRx	
<b>Time to First Fix</b>	Cold Start	< 45 sec	< 50 sec
	Warm Start	After power-on < 30 sec	After power-on < 35 sec
		Re-acquisition < 2 sec	Re-acquisition < 1 sec
<b>WiFi</b>		IEEE 802.11b/g	
<b>Tilt Sensor</b>		Electric Bubble	
		Range 30° < 30mm	
<b>Bluetooth</b>		Class 2	
<b>Memory</b>		Internal 4 GB and MicroSD 4 GB	
<b>RoHS</b>		Complied	
<b>Waterproofing</b>		IP67	
<b>Certification</b>		CE	
<b>Standard Accessories</b>		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.

[www.pentaxsurveying.com/en/](http://www.pentaxsurveying.com/en/)

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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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