

**PENTAX**

## Positioning Systems

## G5 Series

G5Tw | G5Tt | G5Nw | G5Nt

Precision Satellite Surveying  
with Wireless Communications

GPS | GLONASS | BEIDOU | SBAS  
GALILEO (G5Tw & G5Tt ONLY)



- + New 3.5G GSM module for better performance
- + Rugged shape and robust styling with rubber
- + Better dust and weather resistance (IP67)
- + Equipped with TILT sensor that works as an electric bubble (G5Tt & G5Nt only)
- + 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		G5Tw	G5Tt	G5Nw	G5Nt
<b>Channel Configuration</b>		220-channels (dual frequency) for GPS, GLONASS, Galileo, Beidou and SBAS		120-channels (dual frequency) for GPS, GLONASS, Beidou and SBAS	
<b>Receiver Board</b>		Trimble BD970		NovAtel 628	
<b>Single Tracked</b>	GPS	L1 C/A, L2E, L2C, L5		L1, L2, L2C	
	GLONASS	L1C/A, L1P, L2C/A (M only), L2P		L1, L2	
	BEIDOU			B1 / B2	
	Galileo	L1BOC, E5A, E5B, E5AltBOC		—	
	QZSS	L1 C/A, L1 SAIF, L2C, L5		—	
	SBAS	L1 C/A, L5		—	
<b>Position Accuracy</b>		Horizontal / Vertical			
	SBAS	0.5 m / 0.85 m		0.6 m	
	DGPS	0.25 m +1 ppm / 0.5 m + 1ppm		0.4 m	
<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	2.5 mm + 0.5 ppm			
	Vertical Accuracy	5 mm + 0.5 ppm			
<b>Ports</b>		Lemo 5-pin, external radio and power supply			
		Lemo 7-pin, serial port and USB			
<b>Internal Radio Modem</b>	Frequency	410 ~ 470 MHz			
	Output Power	1 W			
<b>GSM/GPRS Modem</b>		Telit HE910-D			
		UMTS / HSPA+ / GSM / GPRS / EDGE (supporting NTRIP)			
<b>Power</b>	Internal Battery	3,350 mAh / 7.4V x2			
	Current Drain	0.45A / 12V			
		1.5A / 12V max.			
	Battery Running Time	Approx. 10 hr: Rover, 8 hr: Base			
<b>Weight</b>		1.5 kg with 2 batteries			
<b>Dimensions</b>		Ø 186 mm x H 89.7 mm			
<b>Environmental Specifications</b>	Operating Temperature	-20 °C to +65 °C			
	Storage Temperature	-20 °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>		up to 50 Hz		up to 5 Hz	
		1 Hz, 2Hz, 5 Hz, 10 Hz, 20 Hz, 50 Hz		1 Hz, 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	—	Electric Bubble
<b>Bluetooth</b>		Class 2			
<b>Memory</b>		MicroSD 4 GB			
<b>RoHS</b>		—			
<b>Waterproofing</b>		IP67			
<b>Certification</b>		CE			
<b>Standard Accessories</b>		2 x Li-Ion rechargeable battery pack			
		Battery charger + AC Adapter			
		4 GB MicroSD Card			
		UHF radio antenna (longer one)			
		5/8 inch screw adapter			
		Lemo 7-pin communication cable			

**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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