

Leica Geosystems GNSS Comparison Chart



		Leica GS18 I	Leica GS18 T	Leica GS18	Leica GS16	Leica GS05	Leica GS07	Leica GS10	Leica GS25
Signal tracking		Multi-frequency	Multi-frequency	Multi-frequency	Multi-frequency	L1/E1, B1I, L2C, B2/E5b	Multi-frequency	Multi-frequency	Multi-frequency
GPS / GLONASS / Galileo / BeiDou / QZSS / SBAS		✓/✓/✓/✓/✓/✓	✓/✓/✓/✓/✓/✓	✓/✓/✓/✓/✓/✓	✓/✓/✓/✓/✓/✓	✓/✓/✓/✓/✓/✓ ¹	✓/✓/✓/✓/✓/✓	✓/✓/✓/✓/✓/✓	✓/✓/✓/✓/✓/✓
HxGN SmartNet Pro ² / HxGN SmartNet+ ² / HxGN SmartNet PPP / HxGN SmartNet NRTK GS05 ²		✓/✓/✓/✓	✓/✓/✓/✓	✓/✓/✓/✓	✓/✓/✓/✓	✗/✗/✗/✓	✓/✓/✓/✓	✓/✓/✓/✓	✓/✓/✓/✓
Imaging functionality		✓	✗	✗	✗	✗	✗	✗	✗
Tilt compensation		✓	✓	By service upgrade	✗	✓ (up to 30°)	✗	✗	✗
Single baseline RTK	Hz	8 mm + 1 ppm	8 mm + 1 ppm	8 mm + 1 ppm	8 mm + 1 ppm	10 mm + 1 ppm	10 mm + 1 ppm	8 mm + 1 ppm	8 mm + 1 ppm
	V	15 mm + 1 ppm	15 mm + 1 ppm	15 mm + 1 ppm	15 mm + 1 ppm	20 mm + 1 ppm	20 mm + 1 ppm	15 mm + 1 ppm	15 mm + 1 ppm
Network RTK	Hz	8 mm + 0.5 ppm	8 mm + 0.5 ppm	8 mm + 0.5 ppm	8 mm + 0.5 ppm	10 mm + 0.5 ppm	10 mm + 0.5 ppm	8 mm + 0.5 ppm	8 mm + 0.5 ppm
	V	15 mm + 0.5 ppm	15 mm + 0.5 ppm	15 mm + 0.5 ppm	15 mm + 0.5 ppm	20 mm + 0.5 ppm	20 mm + 0.5 ppm	15 mm + 0.5 ppm	15 mm + 0.5 ppm
HxGN SmartNet Global (RTK bridging & PPP)	Hz	2.5 cm	2.5 cm	2.5 cm	2.5 cm	✗	2.5 cm	2.5 cm	2.5 cm
	V	5 cm	5 cm	5 cm	5 cm	✗	5 cm	5 cm	5 cm
Static (phase) with long observations	Hz	3 mm + 0.1 ppm	3 mm + 0.1 ppm	3 mm + 0.1 ppm	3 mm + 0.1 ppm	3 mm + 0.5 ppm	3 mm + 0.5 ppm	3 mm + 0.1 ppm	3 mm + 0.1 ppm
	V	3.5 mm + 0.4 ppm	3.5 mm + 0.4 ppm	3.5 mm + 0.4 ppm	3.5 mm + 0.4 ppm	6 mm + 0.5 ppm	6 mm + 0.5 ppm	3.5 mm + 0.4 ppm	3.5 mm + 0.4 ppm
Static and rapid static (phase)	Hz	3 mm + 0.5 ppm	3 mm + 0.5 ppm	3 mm + 0.5 ppm	3 mm + 0.5 ppm	5 mm + 0.5 ppm	5 mm + 0.5 ppm	3 mm + 0.5 ppm	3 mm + 0.5 ppm
	V	5 mm + 0.5 ppm	5 mm + 0.5 ppm	5 mm + 0.5 ppm	5 mm + 0.5 ppm	10 mm + 0.5 ppm	10 mm + 0.5 ppm	5 mm + 0.5 ppm	5 mm + 0.5 ppm
Reliability		99.99%	99.99%	99.99%	99.99%	99.95%	99.95%	99.99%	99.99%
Maximum positioning update rate		20 Hz	20 Hz	20 Hz	20 Hz	10 Hz	5 Hz	20 Hz	20 Hz
Raw data / RINEX data logging / NMEA out		✓/✓/✓	✓/✓/✓	✓/✓/✓	✓/✓/✓	✓/✓/✓	✓/✓/✗	✓/✓/✓	✓/✓/✓
RTK reference station functionality		✓	✓	✓	✓	✓	✗	✓	✓
Cellular / UHF radio (receive & transmit) modem		4G/✓	4G/✓	4G/✓	Controller internal / ✓	✓/✓ ³	Controller internal / Receive only	3G/✓	3G/✓
Storage		Internal memory & SD card	Internal memory & SD card	Internal memory & SD card	Micro SD card	Internal memory	Controller internal	SD card	SD card
User interface (buttons / LEDs / display)		2 / 8 / ✗	2 / 8 / ✗	2 / 8 / ✗	2 / 7 / ✗	1 / 3 / ✗	1 / 3 / ✗	2 / 10 / ✗	7 / 7 / ✓
Power, Bluetooth®, WLAN, USB		✓/✓/✓/✓	✓/✓/✓/✓	✓/✓/✓/✓	✓/✓/✗/✓	✓/✓/✓/✓	✓/✓/✗/✓	✓/✓/✗/✓	✓/✓/✗/✓
Event and PPS		✗	✗	✗	✗	✗	✗	✗	✓
Operating temperature		-30°C to +50°C (camera active)	-40°C to +65°C	-40°C to +65°C	-40°C to +65°C	-30°C to +55°C	-40°C to +65°C	-40°C to +65°C	-40°C to +65°C
		-40°C to +65°C (camera inactive)				-40°C to +65°C ⁴			
IP68 proof against water, sand and dust		✓	✓	✓	✓	✓	✓	✓	✓
Weight (without battery)		1.25 kg	1.23 kg	1.20 kg	0.93 kg	0.75 kg (with internal battery)	0.70 kg	1.20 kg	1.84 kg

1. Enabled through future firmware updates.
2. Available in selected countries only.

3. Available in separated variants.
4. With external power.

✓ = Available ✗ = Not available