

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, B2I/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	4G / ✓	4G / ✓
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 (camera inactive)	-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 ⁴	-40°C to +65°C	-40°C to +65°C	-40°C to +65°C
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
Operating time with internal UHF radio (Rx / Tx)		7 h / 5 h	7 h / 5 h	7 h / 5 h	7 h / 5 h	10 h / 10 h	7 h / NA (device in controller)	15 h / 13 h	14 h / 12 h
Operating time with internal phone		6 h	6 h	6 h	7 h (device in controller)	8 h	7 h (device in controller)	14 h	13 h

- 1. Enabled through future firmware updates.
- 2. Available in selected countries only.
- 3. Available in separated variants.
- 4. With external power.

✓ = Available ✗ = Not available

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- when it has to be **right**

