

Leica Geosystems GNSS Comparison Chart



	Leica GS18 I	Leica GS18 T	Leica GS18	Leica GS16	Leica GS07	Leica GS10	Leica GS25
Signal tracking	Multi-frequency	Multi-frequency	Multi-frequency	Multi-frequency	Multi-frequency	Multi-frequency	Multi-frequency
GPS / GLONASS / Galileo / BeiDou / QZSS / SBAS	✓/✓/✓/✓/✓/✓	✓/✓/✓/✓/✓/✓	✓/✓/✓/✓/✓/✓	✓/✓/✓/✓/✓/✓	✓/✓/✓/✓/✓/✓	✓/✓/✓/✓/✓/✓	✓/✓/✓/✓/✓/✓
SmartLink fill/SmartLink	✓/✓	✓/✓	✓/✓	✓/✓	X/X	✓/✓	✓/✓
Imaging functionality	✓	X	X	X	X	X	X
Tilt compensation	✓	✓	By service upgrade	X	X	X	X
Single baseline RTK							
Horizontal	8 mm + 1 ppm	8 mm + 1 ppm	8 mm + 1 ppm	8 mm + 1 ppm	10 mm + 1 ppm	8 mm + 1 ppm	8 mm + 1 ppm
Vertical	15 mm + 1 ppm	15 mm + 1 ppm	15 mm + 1 ppm	15 mm + 1 ppm	20 mm + 1 ppm	15 mm + 1 ppm	15 mm + 1 ppm
Network RTK							
Horizontal	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	8 mm + 0.5 ppm	8 mm + 0.5 ppm
Vertical	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	15 mm + 0.5 ppm	15 mm + 0.5 ppm
Static (phase) with long observations							
Horizontal	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 + 0.1 ppm	3 mm + 0.1 ppm
Vertical	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	3.5 mm + 0.4 ppm	3.5 mm + 0.4 ppm
Static and rapid static (phase)							
Horizontal	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	3 mm + 0.5 ppm	3 mm + 0.5 ppm
Vertical	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	5 mm + 0.5 ppm	5 mm + 0.5 ppm
Reliability	99.99%	99.99%	99.99%	99.99%	99.95%	99.99%	99.99%
Maximum positioning update rate	20 Hz	20 Hz	20 Hz	20 Hz	5 Hz	20 Hz	20 Hz
Raw data / RINEX data logging / NMEA out	✓/✓/✓	✓/✓/✓	✓/✓/✓	✓/✓/✓	✓/✓/✗	✓/✓/✓	✓/✓/✓
RTK reference station functionality	✓	✓	✓	✓	X	✓	✓
Cellular / UHF radio (receive & transmit) modem	4G/✓	4G/✓	4G/✓	3.75G/✓	Controller internal / Receive only	3G/✓	3G/✓
Storage	Internal memory & SD card	Internal memory & SD card	Internal memory & SD card	Micro SD card	Controller internal	SD card	SD card
User interface (buttons / LEDs / display)	2 / 8 / ✗	2 / 8 / ✗	2 / 8 / ✗	2 / 7 / ✗	1 / 3 / ✗	2 / 10 / ✗	7 / 7 / ✓
Power, Bluetooth®, USB, RS232	✓	✓	✓	✓	✓	✓	✓
Event and PPS	X	X	X	X	X	X	✓
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	-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	0.70 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	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	6 h	7 h (device in controller)	14 h	13 h

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✓ = Available ✗ = Not available

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- when it has to be right

Leica
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