Leica GMX910 Smart Antenna

The affordable, flexible solution for multiple applications

Monitoring Solutions

The all-in-one performer

The GMX910 is a dedicated monitoring smart antenna designed for continuous operations. Built with flexibility in mind, it is adaptable and upgradable. Monitoring professionals of critical projects can easily create an antenna that suits their needs. From static long-term to dynamic high-frequency projects, the Leica GMX910 is an all-in-one performer delivering the highest quality results 24/7.

Future-proof GNSS technology

Part of Leica Geosystems' cutting-edge GNSS technology, this device supports multiple GNSS satellite systems and signals. By supplying 555 channels, the GMX910 anticipates and exceeds GNSS signal needs today and tomorrow. Using the Leica Smart Track+ technology specialists are guaranteed timely and accurate information on the status of sensitive structures to detect and react to potential problems.

Monitoring solution

Fully integrated in the Leica GeoMoS deformation solution, with seamless connection to Leica GNSS Spider, professionals have one provider for all their monitoring needs. The GMX910 can be easily combined with various monitoring sensors and softwares. Streaming highly reliable GNSS data round-the-clock to monitoring applications of critical man-made or natural structures enables those responsible to have peace-of-mind.

- when it has to be **right**

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Leica GMX910

GNSS TECHNOLOGY

Leica Smart Track+	Very low noise GNSS carrier phase measurements (<0.5mm rms). Industry leading Pulse Aperture Correlator (PAC) multipath mitigation technology for superior quality measurements. Excellent low elevation tracking, fast acquisition time and jamming resistant.	
Signal tracking[1]	GPS (L1[2], L2P(Y), L2C, L5) GLONASS (L1, L2P, L2C) BeiDou (B1, B2) QZSS (L1, L2C, L5)	
Number of channels	555	
Update rate	10 Hz	
Antenna	Integrated antenna	

MEASUREMENT PERFORMANCE AND ACCURACY[3]

Post processing static mode	Horizontal: 3 mm + 0.5 ppm Vertical: 5 mm + 0.5 ppm	
Real-time kinematic	Single baseline (< 30 km) Horizontal: 8 mm + 1 ppm Vertical: 15 mm + 1 ppm	Network RTK Horizontal: 8 mm + 0.5 ppm Vertical: 15 mm + 0.5 ppm
Time for initialisation	Cold start: < 40 s / Warm start: < 30 s / Signal reaquisition: < 1 s	
Operating times	Designed for continuous operation	

CONNECTION AND POWER

User interface	Status indicator (LED): satellite tracking and power
Port	8-pin female Lemo-1 connector data and power 4800-230400 baud rate
Cable	RS232; GEV197 cable
Mounting	5/8" Whitworth
Power consumption	2.0 W (when all GNSS constellations tracked) Nominal 12 V DC, voltage range 10.5-28 V

TECHNICAL AND ENVIRONMENTAL DATA

Dimensions / weight	Diameter: 18.6 cm, Height: 6 cm / 0.7 kg
Temperature	Operating: -40 °C to +65 °C (-40 °F to +149 °F) Storage: -40 °C to +80 °C (-40 °F to +176 °F)
Humidity	100%, non-condensing
Proof against water, sand and dust	IP67 (IEC 60529) and MIL-STD-810G - 512.5-I Dust tight Protected against water jets Waterproof to 1 m temporary immersion
Vibration	Withstands strong vibration during operating, compliance with ISO9022-36-05 and MIL-STD-810G - 514.6-Cat.24
Drop	Withstands 1 m drop onto hard surface

[1] The tracking capability for a specific satellite system is based on publicly available information. For cases where public information is subject to change or not yet available Leica Geosystems cannot guarantee full compatibility.
[2] GPS L1 only is a basic option. Availability of the systems and frequencies depends on purchased options.
[3] Measurement precision, accuracy in position and height, reliability and time for initialisation are dependent upon various factors including the number of satellites tracked, the observation time, the ephemeris accuracy, the atmospheric conditions, multipath and resolved ambiguities. Figures quoted are RMS (root mean square) and assume normal to favourable conditions.

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