The GNSS high-precision antenna is an active antenna for positioning, surveying and navigation systems. It supports all L-band signals from the four global navigation satellite systems (GNSS) GPS, GLONASS, Galileo, and BeiDou, and is compatible with all standard GNSS receivers.

The key features of the antenna design: the shape of the radiation pattern combines effective multipath suppression with the ability to receive signals from satellites at low elevation angles. The patented design also ensures minimal – and reliably reproducible – phase-center variations (PCVs). As a result, the antenna is exceptionally precise, and is suitable for both mobile surveying and for GNSS reference stations.

The antenna’s design can be modified quickly and easily to meet customer-specific needs, and to withstand difficult environmental conditions. For example, the GNSS antenna can be used in control systems for construction and agricultural machinery. Further modifications enable its deployment as a navigation antenna for marine, public safety, and space applications.
TECHNICAL DATA

- Supported signals: E1–E6; L1, L2, L5; G1–G3; B1–B3 (1.16 to 1.30 GHz and 1.52 to 1.61 GHz)
- Polarization: RHCP, XPD ≥ 15 dB
- 10 dB beamwidth: 150° to 180°
- PCV: -3 to +5 mm (across the frequency range)
- PCV reproducibility: < 1 mm
- LNA gain: approx. 30 dB, optionally approx. 40 dB
- Noise figure: < 2 dB
- Power supply: 3.3 V to 5 V, optionally to 12 V
- Connection type: TNC female connector

Radiation Patterns

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RHCP

LHCP

Normalized to 3.5 dBiC
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