

Triple GNSS geodetic-grade antenna

Designed for precision, Roke Manor Research's satellite navigation antenna offers exceptional GPS, Galileo and GLONASS positioning accuracy.

This antenna can be used with confidence for the most demanding applications, having exceptional phase centre stability over a wide frequency range. The consistently high gain over frequency means uncompromised visibility and usability of available satellites. The optional internal amplifier and interference filtering provides enhanced reception in harsh operating environments.



Datasheet

Typical performance¹

GNSS carrier	Freq (MHz)	Element gain (dBic)	Roll off to 10° above horizon (dB)
GPS L1 / Galileo E2-L1-E1	1575	+5.2	10
GPS L2	1228	+6.3	8
GPS L5 / Galileo E5a	1176	+7.4	8
GLONASS L1	1602	+5.1	10
GLONASS L2	1246	+5.8	8
Galileo E5b / GLONASS L3	1207	+6.8	8
Galileo E6	1279	+5.1	9

- **Pattern**
 - Hemispherical
- **Phase centre variation**
 - Elevation: ± 3mm
 - Azimuth: ± 1mm
- **Axial ratio**
 - < 3dB from zenith to 10° above horizon
 - < 5dB from 10° to horizon
- **Physical size**
 - Diameter: 145mm
 - Height: 113mm
 - Weight: 430g
- **Optional features:**
 - Low noise amplifier with > 16dB gain
 - Internal filters for interference suppression
 - Multi-path reduction ground plane²
 - Customisable design to meet customer requirements

Example applications

- Accurate positioning, e.g. surveying
- Seismic monitoring
- Vehicle guidance
- Air traffic management

Roke has been developing antennas for over 50 years. State-of-the-art simulation and measurement facilities are used to take antennas from concept, through design proving and validation, to manufacture. Clients include: Galileo Joint Undertaking, UK MoD, Siemens A&D and Siemens Communications.

For more information on our expertise in this area please contact us.

¹. Quoted specifications are provisional and are taken from measurements of prototypes.
². Planned development.

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