

ANYWAVES

CONTROL MATERIAL TO MASTER WAVES

GNSS All-Bands Antenna

Rx

Hemispherical coverage

Very high accuracy

Size < 1U



Benefits

- All GNSS bands : GPS, Galileo, Glonass, Beidou, IRNSS L5, QZSS L6, INMARSAT in L-band for precise point positioning (PPP).
- Radome protection against harsh environment: temperatures & ESD
- **Acceptance Tests** (RF, Mechanical, Thermal) included:
 - Return loss
 - Z-axis random vibration
 - Thermal cycling
- ITAR Free
- **Unique GNSS All-Bands antenna on the market**

ANYWAVES, the only pure European space antenna equipment manufacturer, provides high-performance and high-quality antennas for satellite constellations.

Perfectly suited to satellite missions, ANYWAVES GNSS All-Bands antenna is optimized to cover worldwide navigation systems including INMARSAT in L-band.

Its design has a very stable phase centre providing a very high accuracy.

Based on materials and processes with space heritage, this antenna has a TRL 8.

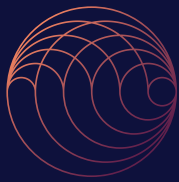


ANYWAVES

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Waiver : Fact and figures herein are for information only and do not represent any warranty of any kind





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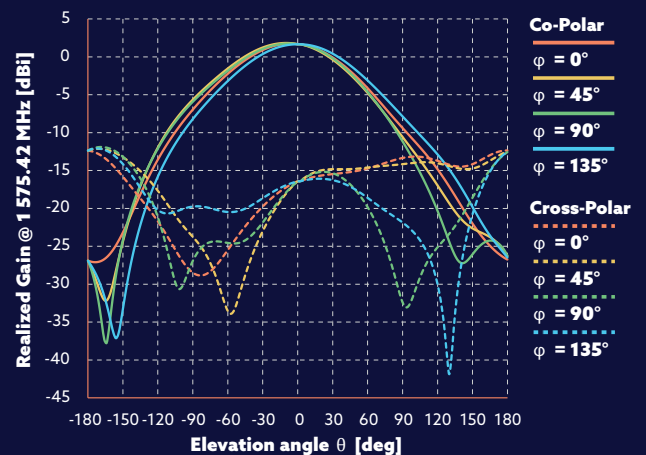
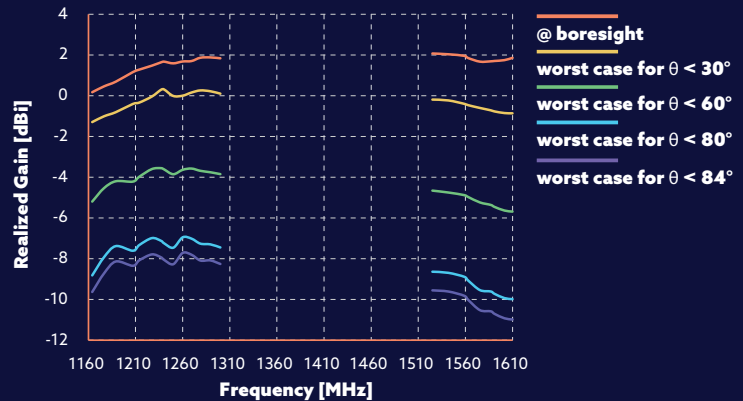
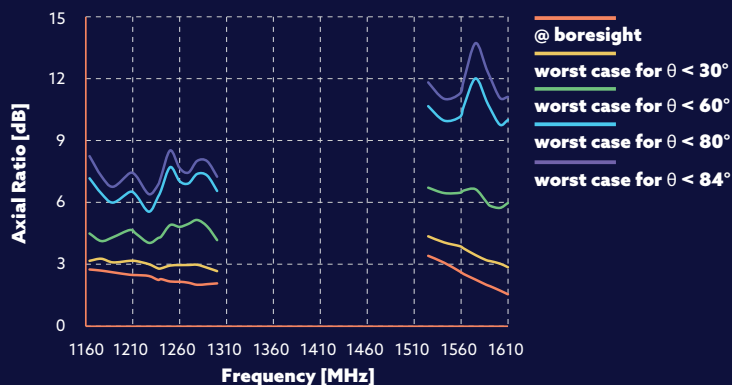
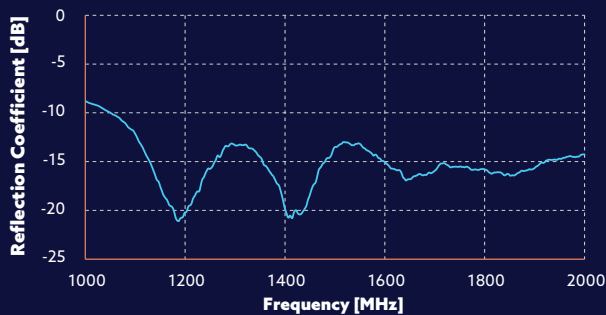
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Typical Measured performance



Typical performance

Frequency bands	1 160 to 1 610 MHz: GPS L1/L2/L5, Galileo E1/E5a/E5b/E6 Glonass G1/G2/G3, Beidou B1/B2a/B2/B3 Inmarsat L-band: 1 525 - 1 559 MHz
Polarization	Right Hand Circular Polarization
Reflection coefficient	≤ -10 dB
Realized gain	@ boresight > 0 dBi
Gain variation	In all individual sub-bands: < 0.6 dBi
Axial ratio	@ boresight < 3 dB
Phase center position (± 30° FoV) Maximum variation vs frequency	Variation within a sphere of radius < 4.7 mm for all bands Variation within a sphere of radius < 1.8 mm for individual sub-bands
Phase center position (± 30° FoV) Maximum variation vs elevation	Variation < 0.4 mm within ± 30° Variation < 2.6 mm within ± 60°
Group delay variation	< 1.2 ns

Physical characteristics

Envelope size	Footprint: 90 mm x 90 mm Without connector: Total height: 15 mm - Protruding height: 8.5 mm - Internal height: 6.5 mm With connector: Total height: 24.4 mm
Mass with connector	123 ± 4 g
Connector	SMA female 50 Ω
Mechanical interface	4 x M3 (unthreaded hole)
Operational Temperature	-120°C / +120°C
Protective Radome	TECAPEEK GF30 coated with SG121FD white paint (on Flight Models only) resistant to thermal and radiation environment and preventing from electrostatic discharges.
Acceptance Tests	Performed on Flight Models only