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.

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
GNSS All-Bands Antenna

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)**: Variation within a sphere of radius < 4.7 mm for all bands
- **Phase center position (± 30° FoV)**: Variation within a sphere of radius < 1.8 mm for individual sub-bands
- **Group delay variation**: < 1.2 ns

**Physical characteristics**

- **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