

ANYWAVES

CONTROL MATERIAL TO MASTER WAVES

cnesadvance

S-Band TT&C Antenna

Test Cap compatible version

Tx and Rx

Hemispherical coverage

HPBW > 90°

Size < 1U



Space Heritage

- In orbit since 2019
- **CNESAdvance Label** : material & processes used have French Space Agency heritage.

Benefits

- **Full Duplex Telemetry & Telecommand**
- Radome protection against harsh environment : temperatures & ESD
- **Acceptance Tests** (RF, Mechanical, Thermal) included:
 - Return loss
 - Z-axis random vibration
 - Thermal cycling
- ITAR Free

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

Perfectly suited to LEO platforms, ANYWAVES S-Band antenna operates both in transmission for telemetry and in reception for telecommand. Its wide beam coverage enables the best satellite availability for TT&C link.

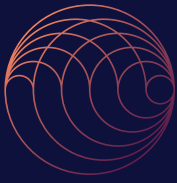
NB : compatible with ANYWAVES Test Cap for S-Band TT&C Antennas.



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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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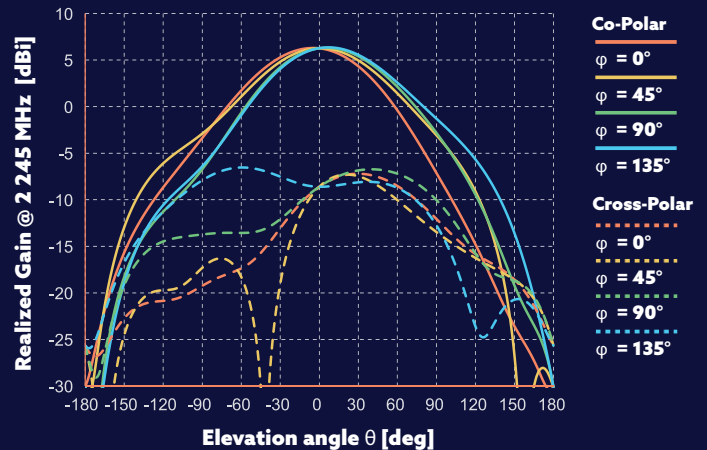
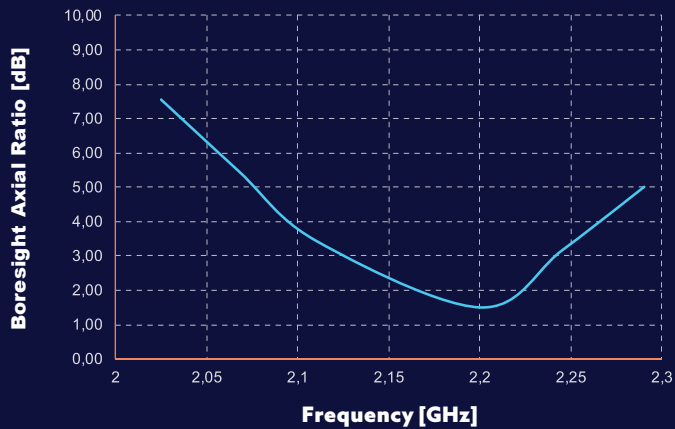
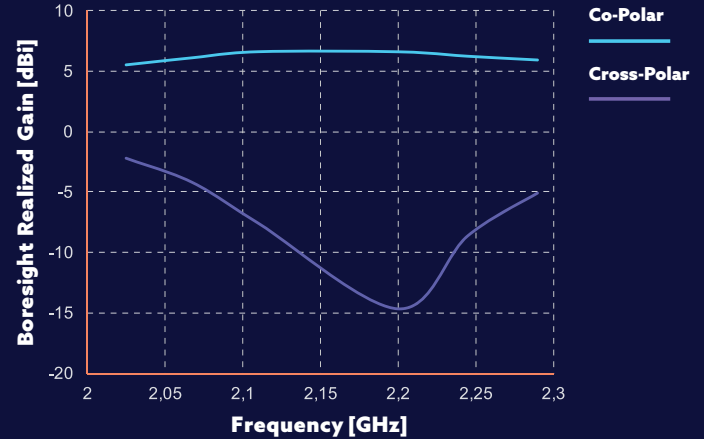
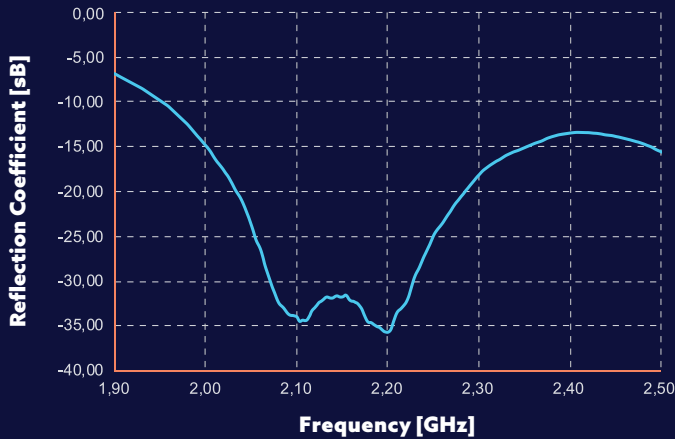
Tx and Rx

Hemispherical coverage

HPBW > 90°

Size < 1U

Typical Measured Performance



Typical performance

| | |
|-------------------------|---|
| Frequency band | From 2 025 MHz to 2 290 MHz |
| Bandwidth | > 265 MHz |
| Polarization | Left or Right Hand Circular Polarization |
| Reflection coefficient | < -15 dB (all frequency band) |
| Half Power Beam Width | > 90° ($\pm 45^\circ$ in all planes) |
| Efficiency | > 92% |
| Gain @ 2 150 MHz | Gain @ boresight > 6.5 dBi Gain @ $\pm 30^\circ$ > 4.5 dBi Gain @ $\pm 60^\circ$ > 0 dBi |
| Axial Ratio @ 2 150 MHz | < 3 dB from 0° to $\pm 30^\circ$ < 5 dB from 0° to $\pm 60^\circ$ < 8 dB from 0° to $\pm 90^\circ$ |

Physical characteristics

| | |
|---------------------------------|--|
| Envelope size without connector | L 84.3 x W 84.3 x H 12.1 mm ³ Protruding height: 6.3 mm |
| Mass with connector | 136 \pm 3 g |
| RF Power | More than 3W |
| Operational Temperature | -120°C / + 120°C |
| Protective Radome | VESPEL coated with SG121FD white paint (on Flight Models only) resistant to thermal and radiation environment and preventing from electrostatic discharges. |
| Connector | Coaxial SMA female (50 Ω) |
| Mechanical interface | 4 x M3 (unthreaded hole) |
| Acceptance Tests | Performed on Flight Models only |