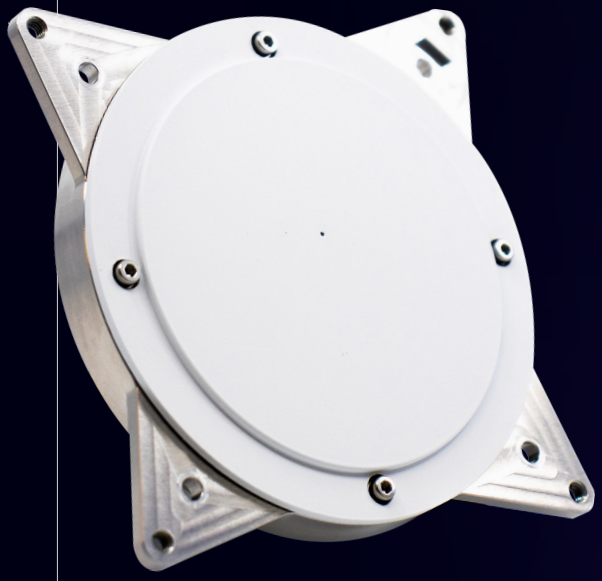
ANYWAVES

SPACE ANTENNA MAKERS

QUALITY SYSTEM CERTIFICATION DNV ISO 9001 AS/EN/JISQ 9100



cnesadvance

TT&C ANTENNAS

S-Band TT&C Antenna

ANYWAVES S-Band antenna is our flagship antenna with a strong flight heritage (TRL 9).
Perfectly suited to LEO platforms, this 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. In pair work, ANYWAVES S-band TT&C antenna provides an omni-directional coverage to enhance the satellite availability.
This antenna is provided with right or left-hand circular polarization with a SMA (SubMiniature version A) connector.

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

Tx and Rx | Hemispherical Coverage | HPBW > 90° | Size < 1U

Benefits

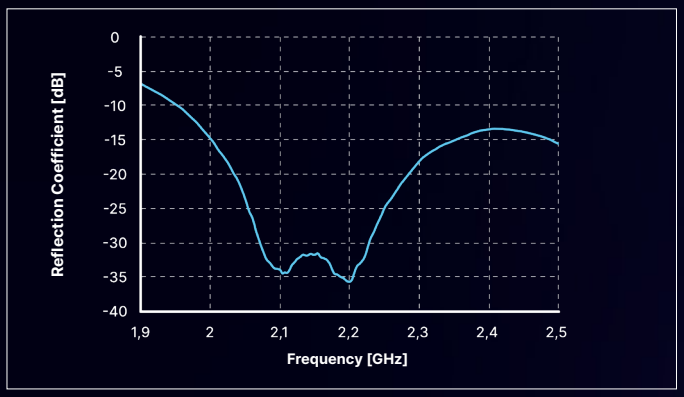
- Full Duplex Telemetry & Telecommand
- Radome protection against harsh environment: temperature & ESD
- ITAR Free
- In orbit since 2019

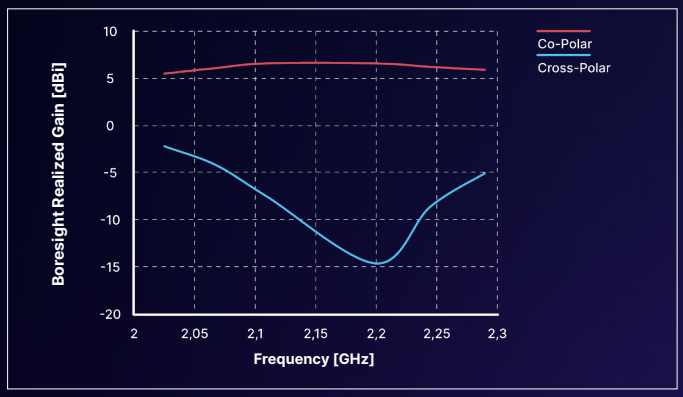
  CNESAdvance Label
- Acceptance Tests (RF, Mechanical, Thermal) included:
  - Return loss
  - Z-axis random vibration
  - Thermal cycling

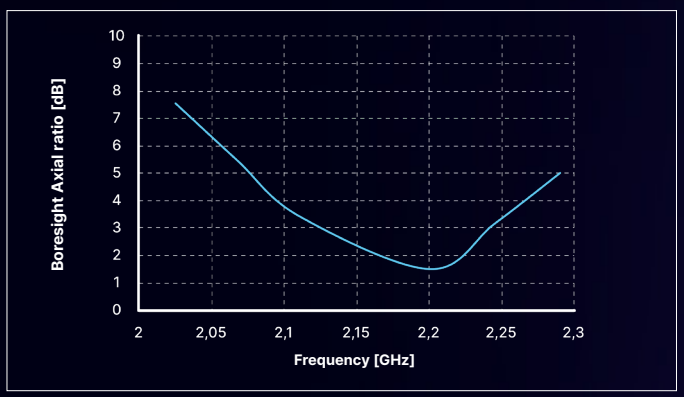
S-BAND TT&C ANTENNA

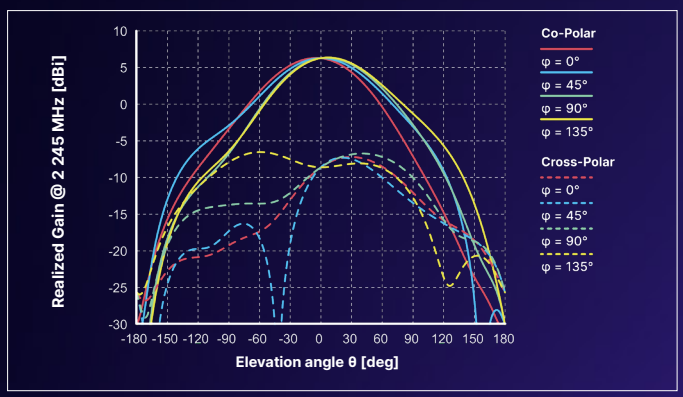
Typical Measured Performance

Tx and Rx | Hemispherical Coverage | HPBW > 90° | Size < 1U









Typical Performance

Frequency Bands	**From 2.025 GHz to 2.29 GHz**
Bandwidth	> 265 MHz
Polarization	Left or Right Hand Circular Polarization
Reflection Coefficient	< -15 dB (all frequency band)
Half Power Beam Width	> 90° (± 45° in all planes)
Power Handling	10 W
Efficiency	> 92%
Gain @ 2 150 MHz	Gain @ boresight > 6.5 dBi Gain @ ± 30° > 4.5 dBi Gain @ ± 60° > 0 dBi
Axial Ratio @ 2 150 MHz	< 3 dB from 0° to ± 30° < 5 dB from 0° to ± 60° < 8 dB from 0° to ± 90°

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 ± 3g
Connector	Coaxial SMA female (50 Ω)
Mechanical Interface	4 x M3 (unthreaded hole)
Qualification Temperature	-120°C / +120°C
Protective Radome	VESPEL coated with SG121FD white paint (on Flight Models only) resistant to thermal and radiation environments and preventing electrostatic discharges.
Acceptance Tests on Flight Models	- Radio Frequency - Mechanical - Thermal
Acceptance Tests on Engineering Models	Radio Frequency Only

Disclaimer: facts and figures herein are for information only and do not represent any warranty of any kind.