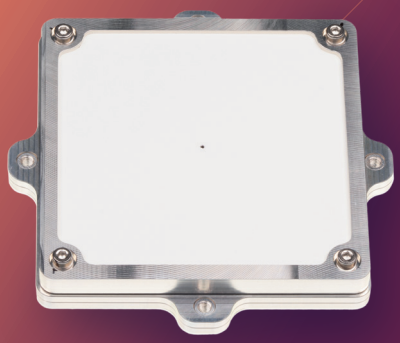
ANYWAVES
CONTROL MATERIAL TO MASTER WAVES

cnesadvance

X-Band Payload Telemetry Antenna

Tx | Medium gain | HPBW ~ 40° | Size < 1U



Space Heritage

- CNESAdvance Label : material & processes used have French Space Agency heritage.
- 1 flight model in orbit since December 2019 : EYESAT (CNES / CSUT JANUS Project, U-Space 3U platform).

Benefits

- High data rate payload telemetry
- Radome protection against harsh environment: temperatures & ESD
- Acceptance Tests (RF, Mechanical, Thermal) included :
  - Return loss
  - Z-axis random vibration
  - Thermal cycling
- ITAR Free

ANYWAVES, a French space equipment manufacturer based in Toulouse, provides high-performance and high-quality antennas for satellite constellations.

Perfectly suited to LEO platforms, ANYWAVES X-Band antenna provides a medium gain with excellent axial ratio. It guarantees a high data rate for your payload telemetry links.

ANYWAVES
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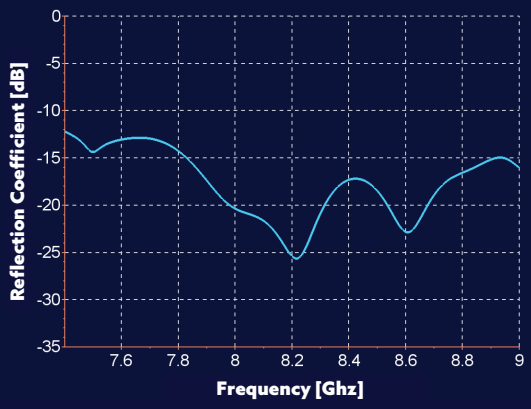
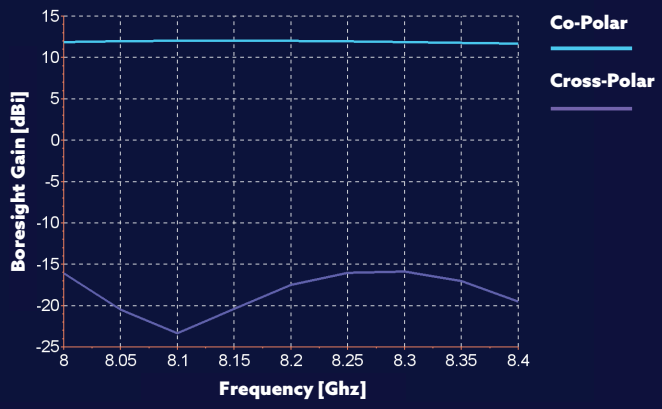
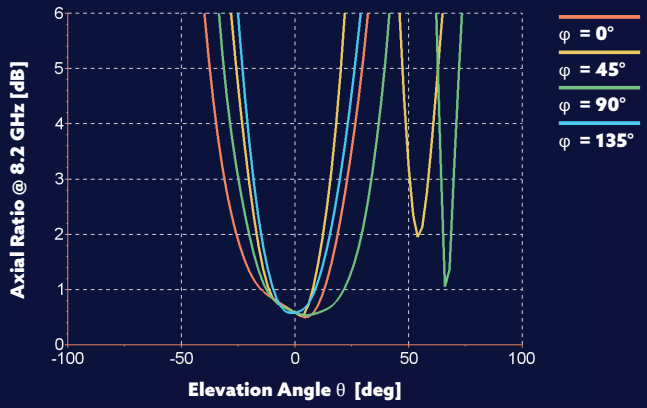
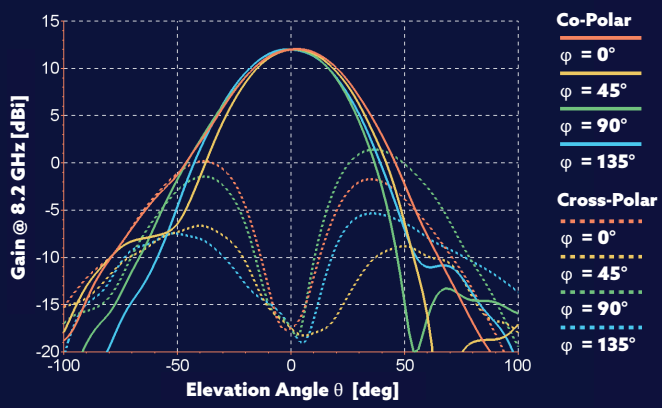
Simulated RF performance









Typical performance

Frequency band	From 8.025 GHz to 8.4 GHz
Bandwidth	> 375 MHz
Polarization	Left or Right Hand Circular Polarization
Reflection coefficient	< -15 dB (all frequency band)
Half Power Beam Width	~ 40° (± 20°)
Efficiency	> 88% (worst case)
Gain @ 8.2 GHz	12 dBi
Axial Ratio @ 8.2 GHz	< 3 dB from 0° to ± 10°

Physical characteristics

Envelope size without connector	L 72.6 x W 72.6 x H 11 mm³ Protruding height : 11 mm
Mass with connector	59 ± 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	SMA female (50 Ω)
Mechanical interface	4 x M2.5 (unthreaded hole)
Acceptance Tests	Performed on Flight Models only

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