ANYWAVES

SPACE ANTENNA MAKERS

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



TT&C ANTENNAS

Compact S-Band TT&C Antenna

ANYWAVES Compact S-band TT&C antenna is an ultra compact antenna featuring excellent radiation characteristics over a wide frequency band, especially at high elevation angles. It can withstand harsh thermal environment thanks to a protective radome. Furthermore, both polarization (Right Handed and Left Handed Circular Polarization) can be used simultaneously.

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

Single or Dual-Polarization | Tx and Rx | Hemispherical Coverage | Wideband | Size < 1U

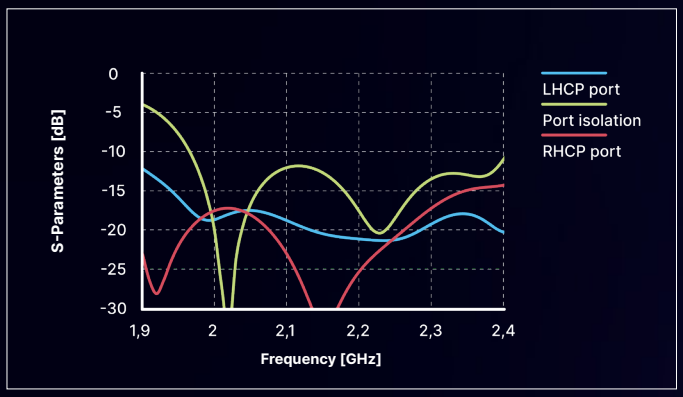
Benefits

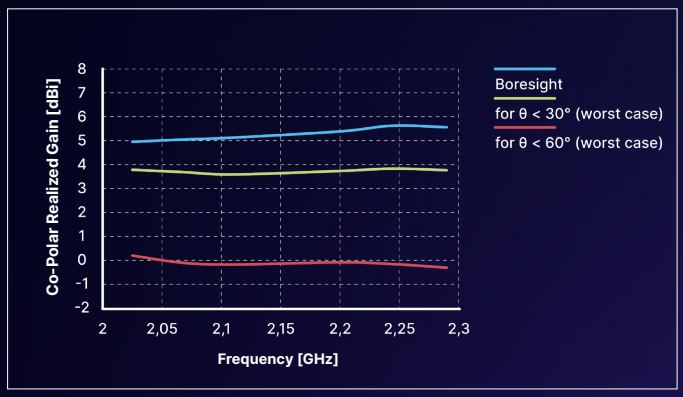
- Full Duplex Telemetry & Telecommand
- Wide frequency band
- Acceptance Tests (RF, Mechanical, Thermal) included:
  - Return loss
  - Z-axis random vibration
  - Thermal cycling
- Dual-Polarization capable
- ITAR Free

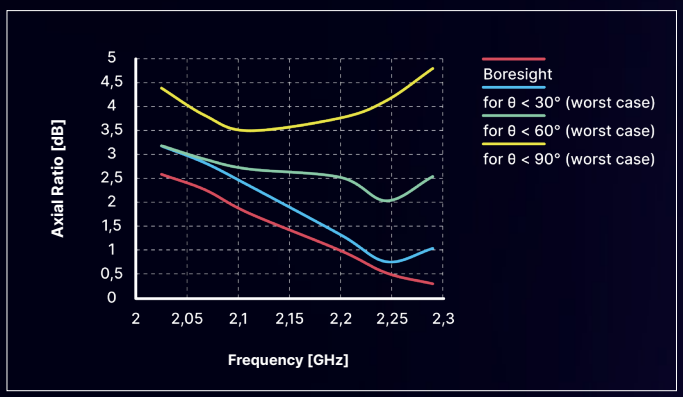
COMPACT S-BAND TT&C ANTENNA

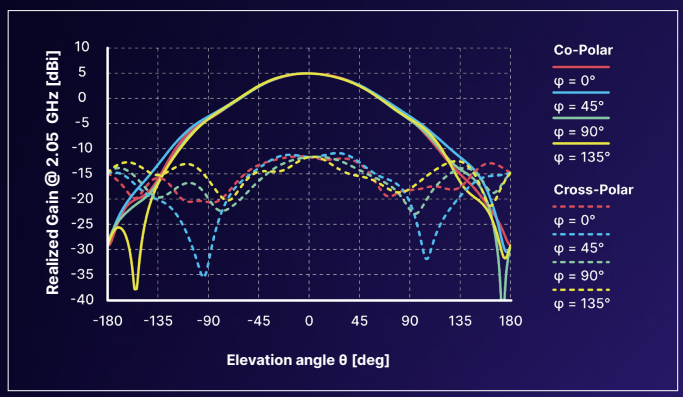
Typical Measured Performance

Single or Dual-Polarization | Tx and Rx | Hemispherical Coverage | Wideband | Size < 1U









Typical Performance

Frequency Bands	**From 1.98 GHz to 2.29 GHz**
Bandwidth	> 310 MHz
Polarization	Left and/or Right Hand Circular Polarization
Reflection Coefficient	RHCP port < -16 dB LHCP port < -16 dB Isolation < -12 dB
Power Handling	20 W
Half Power Beam Width	> 88° (± 44° in all planes)
Realized Gain	Gain @ boresight > 5.4 dBi Gain @ ± 30° > 4.2 dBi Gain @ ± 60° > 0.5 dBi
Axial Ratio	< 3 dB from 0° to ± 30° < 3.5 dB from 0° to ± 60° < 4 dB from 0° to ± 90°

Physical Characteristics

Envelope Size Without Connector	L 70.9 x W 70.9 x H 9.78 mm^3 Protruding height: 5mm
Mass With Connector	< 77 g
Connector	2 x Coaxial SMP male (50Ω) or SMA female (50Ω)
Mechanical Interface	4 x M3 (unthreaded hole)
Qualification Temperature	-120°C / +120°C
Protective Radome	PEEK 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.