

ANYWAVES
CONTROL MATERIAL TO MASTER WAVES

Compact **S-Band** TT&C Antenna

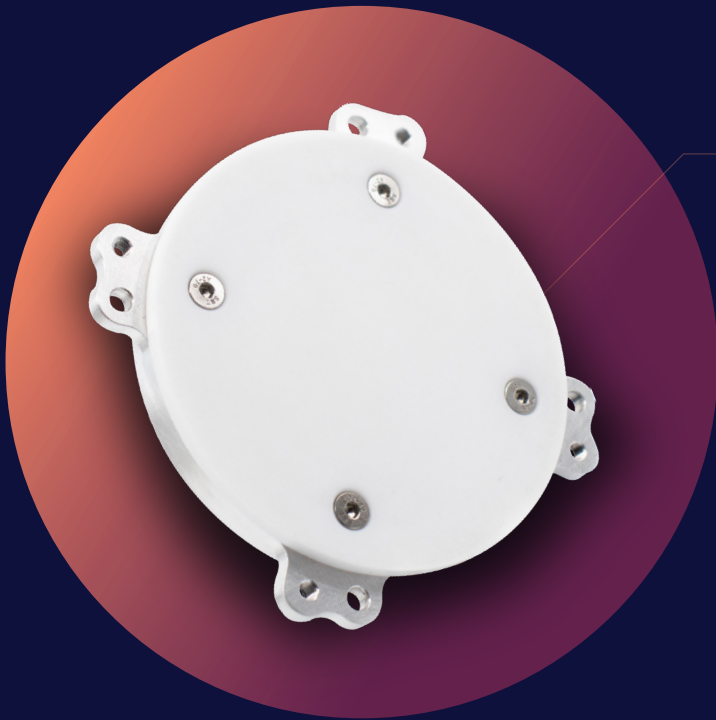
Single or dual-polarization

Tx and Rx

Hemispherical coverage

Wideband

Size < 1U



Benefits

- Full Duplex Telemetry & Telecommand
- Dual-Polarization capable
- Wide frequency band
- 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.

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.

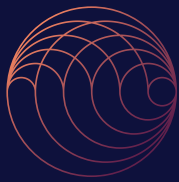
NB : compatible with ANYWAVES Test Cap for S-Band TT&C Antennas.



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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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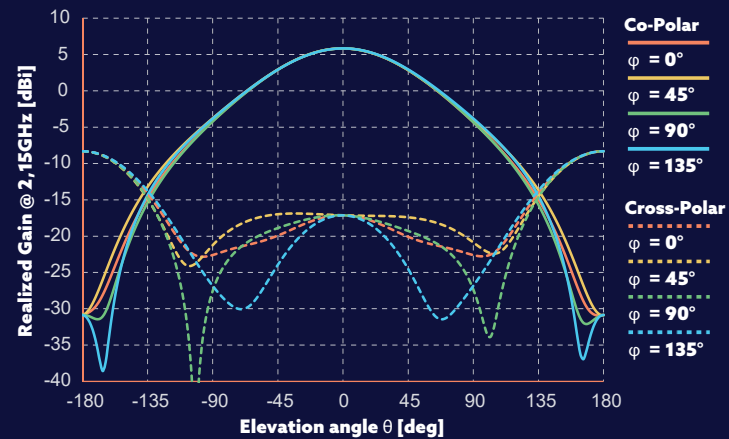
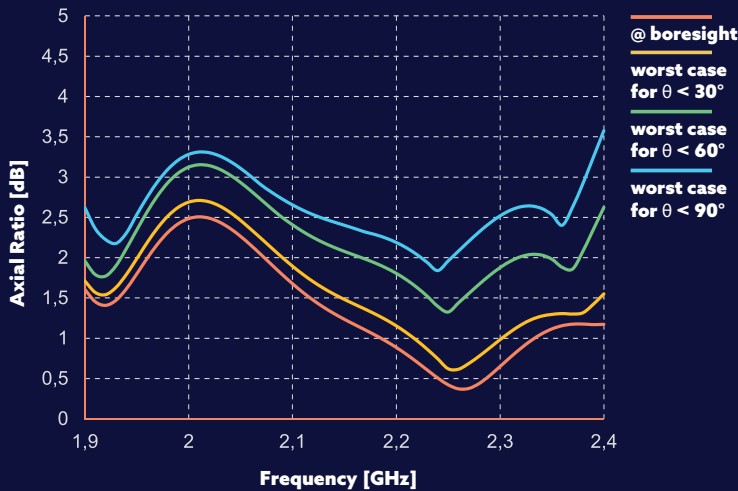
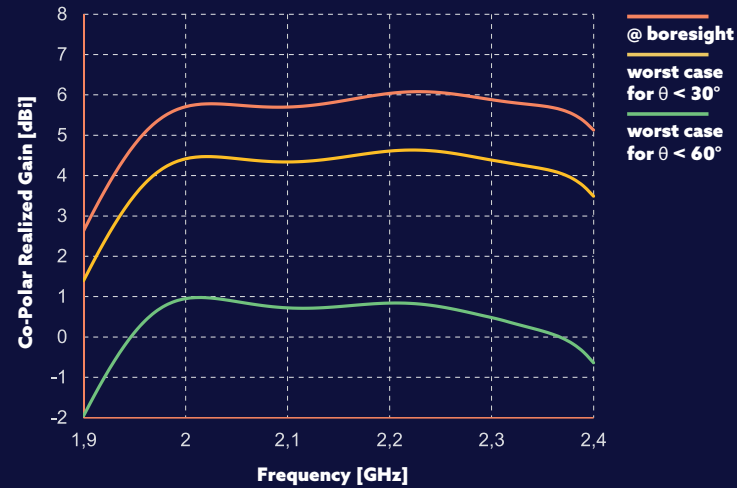
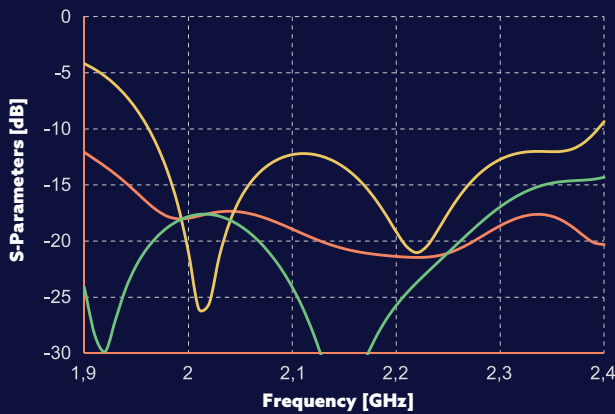
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Simulated Performance



Typical performance

Frequency band	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
Half Power Beam Width	> 88° ($\pm 44^\circ$ in all planes)
Realized gain	Gain @ boresight > 5.4 dBi Gain @ $\pm 30^\circ$ > 4.2 dBi Gain @ $\pm 60^\circ$ > 0.5 dBi
Axial Ratio	< 3 dB from 0° to $\pm 30^\circ$ < 3.5 dB from 0° to $\pm 60^\circ$ < 4 dB from 0° to $\pm 90^\circ$

Physical characteristics

Envelope size without connector	L 70.9 x W 70.9 x H 9.78 mm ³ Protruding height: 5 mm
Mass with connector	< 77 g
Connector	2 x Coaxial SMP male (50 Ω)
Protective Radome	PEEK coated with SG121FD white paint (on Flight Models only) resistant to thermal and radiation environment and preventing from electrostatic discharges.
Mechanical interface	4 x M3 (unthreaded hole)
Acceptance Tests	Performed on Flight Models only