

TT&C Antenna

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 Hat for S-Band TT&C Antennas.

Rx and Tx

Hemispherical Coverage

HPBW > 90°

Size < 1U



Benefits



Full Duplex Telemetry & Telecommand



**In Orbit Since 2019
CNES Advance Label**



Fully Qualified:
RF, Mechanical, and Thermal Acceptance
Tests Included (Return Loss, Z-Axis Random
Vibration, Thermal Cycling).

anywaves.com



ITAR-free:
Suitable for international programs without
export restrictions.



Robust Design:
Radome Protection Ensures Reliable Operation
in Harsh Environments (Temperature, ESD).

ANYWAVES



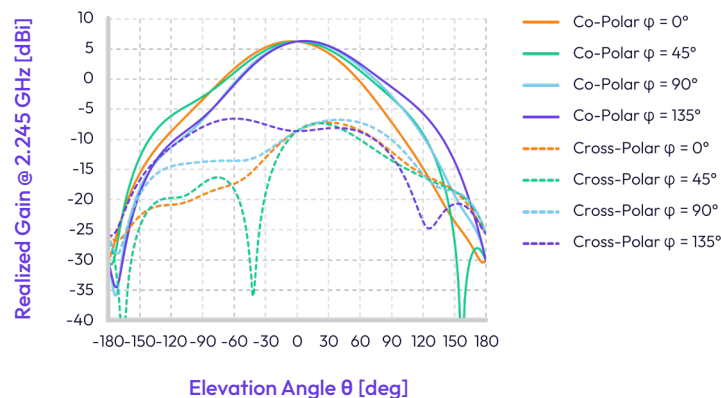
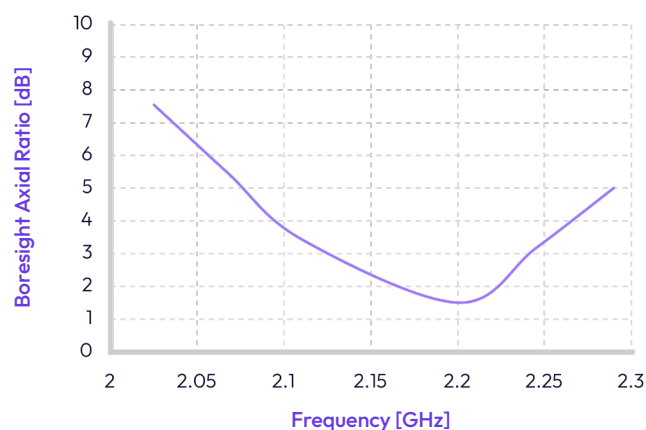
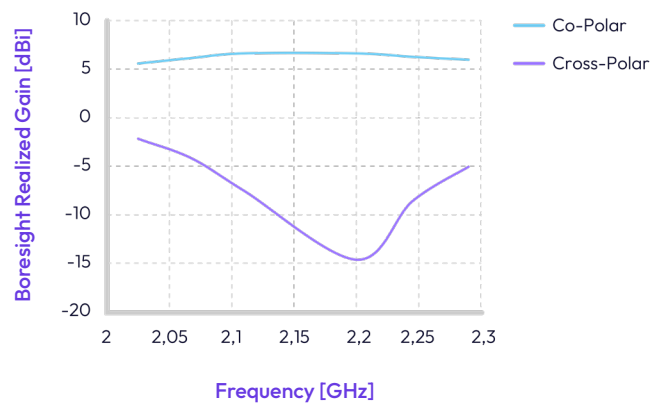
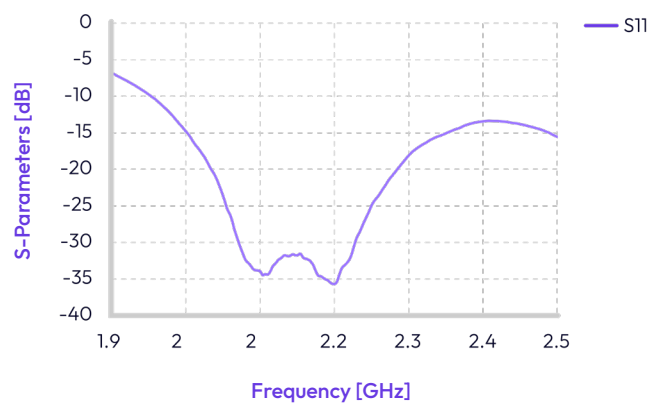
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Typical Measured Performance



Typical Measured Performance

Frequency Band	From 2.025 to 2.29 GHz
Bandwidth	> 265 MHz
Polarization	Right or Left Hand Circular Polarization
Reflection Coefficient	< -15 dB (All Frequency Band)
HPBW	> 90° ($\pm 45^\circ$ in All Planes)
Power Handling	Transmit and Receive
Efficiency	> 92%
Realized Gain	> 6.5 dBi @Boresight > 4.5 dBi @ $\pm 30^\circ$ > 0 dBi @ $\pm 60^\circ$
Axial Ratio	< 5.5 dB from 0° to $\pm 40^\circ$ < 8.5 dB from 0° to $\pm 80^\circ$ < 11 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 $\pm$ 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	Flight Models - Radio Frequency - Mechanical - Thermal Engineering Models - Radio Frequency Only