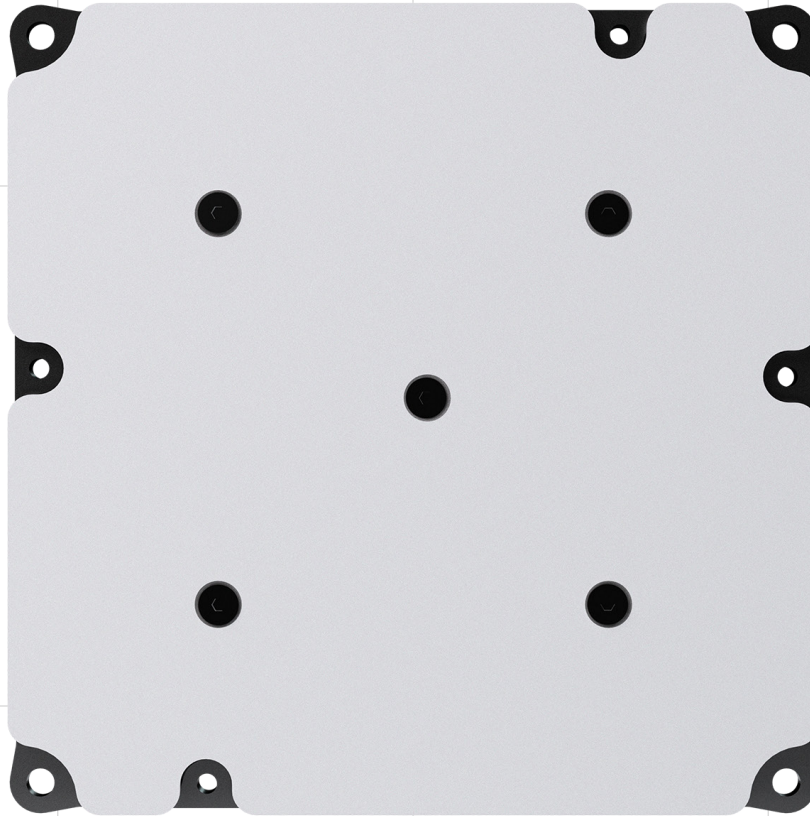


Compact Dual-Polarized X-Band Antenna



This compact 1U X-band antenna offers simultaneous dual circular polarization (LHCP & RHCP), enabling increased data rates or polarization diversity. It is ideal on small satellite platforms, particularly those requiring high-data-rate payload telemetry such as Earth Observation missions.

Despite its compact form factor, the antenna delivers a boresight gain exceeding 16.5 dBi, making it a robust choice for demanding

applications where size, weight, and performance must be carefully balanced.

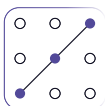
NB: compatible with Anywaves Test Hat for X-Bands Antennas.

Dual-Polarization

G > 15.5 dBi

Ultra Low Profile

Size < 1U



Benefits



High Data-Rate Payload Telemetry



High Cross-Polarization Discrimination



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.



Simultaneous Dual Circular Polarization to Double Data Throughput



Robust Design:

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

ANYWAVES

Data Downlink Antennas

Compact Dual-Polarized X-Band Antenna



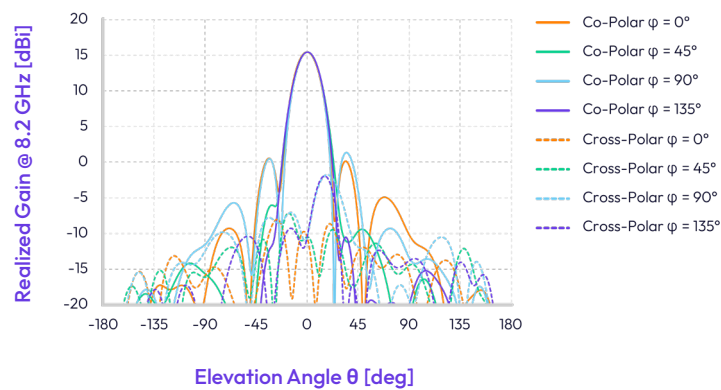
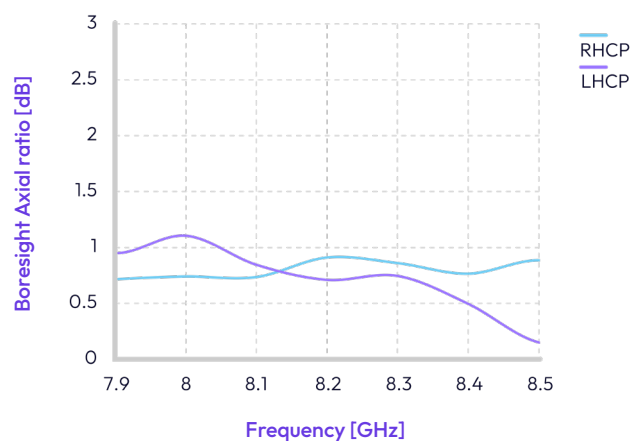
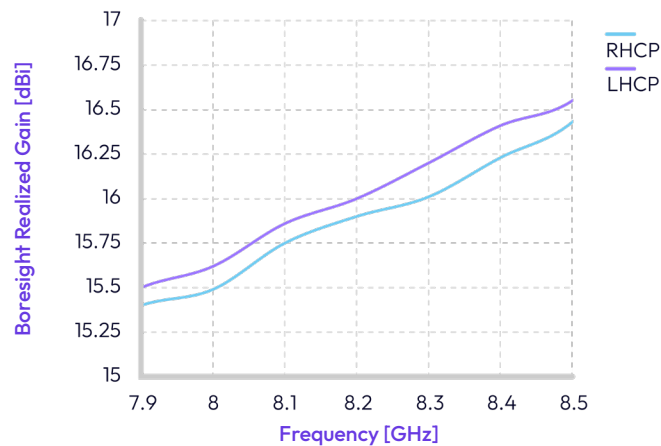
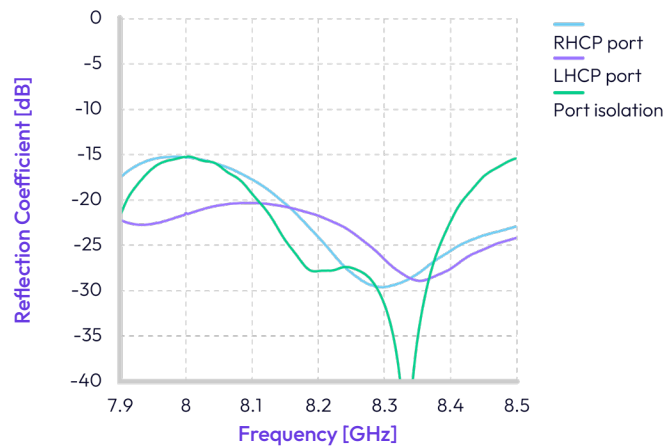
Dual-Polarization

$G > 15.5$ dBi

Ultra Low Profile

Size < 1U

Typical Measured Performance



Typical Measured Performance

Frequency Band	From 8.025 to 8.4 GHz
Bandwidth	375 MHz
Polarization	Right and/or Left Hand Circular Polarization
Reflection Coefficient	RHCP port < -15 dB LHCP port < -15 dB Port to port isolation < -15 dB
HPBW	~20° (±10°)
Power Handling	20 W (Either 1x20 W or 2x10 W Continuous Wave)
Realized Gain @8.2 GHz	> 15.5 dBi @boresight < 1 dB from 0° to ± 5°
Axial Ratio @8.2 GHz	(all Planes) < 2 dB from 0° to ± 10° (all Planes)

Physical Characteristics

Envelope Size	L 100 x W 100 x H 26.1 mm3 Protruding Height: 8.7mm (connectors excluded)
Mass (With Connector)	140g ± 7g
Connector	Coaxial 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	Flight Models - Radio Frequency - Mechanical - Thermal Engineering Models - Radio Frequency Only