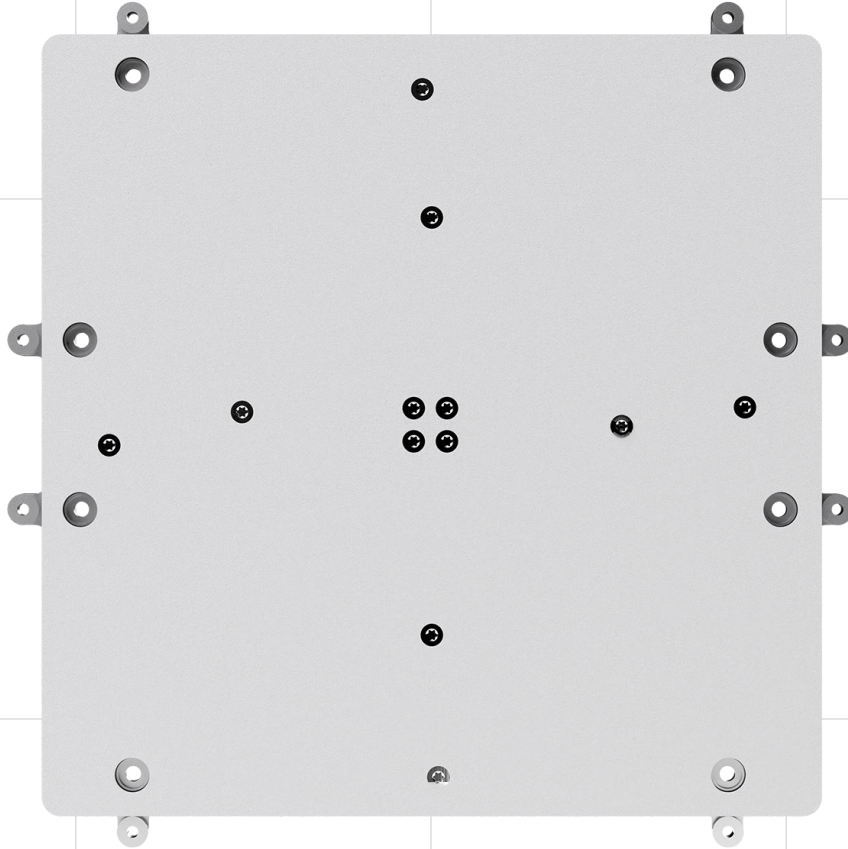


High-Gain X-Band Antenna



Anywaves' High-Gain X-Band Antenna is optimized for payload telemetry requiring high data rates. With >20 dBi boresight gain over 7.9–8.5 GHz and circular polarization (RHCP or LHCP), it ensures excellent signal integrity.

Compact, lightweight, and reliable, it is built for harsh space environments with a PEEK-coated radome designed to withstand extreme temperatures. This antenna is ideal for demanding satellite

missions needing robust and efficient data downlink.

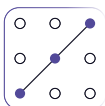
NB: compatible with Anywaves Test Hat for X-Bands Antennas.

Tx

High Gain

> 20 dBi

Ultra Low Profile



Benefits



High Data-Rate Payload Telemetry



High Gain Broadside Beam (>20dBi)



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

Data Downlink Antennas

High-Gain X-Band Antenna



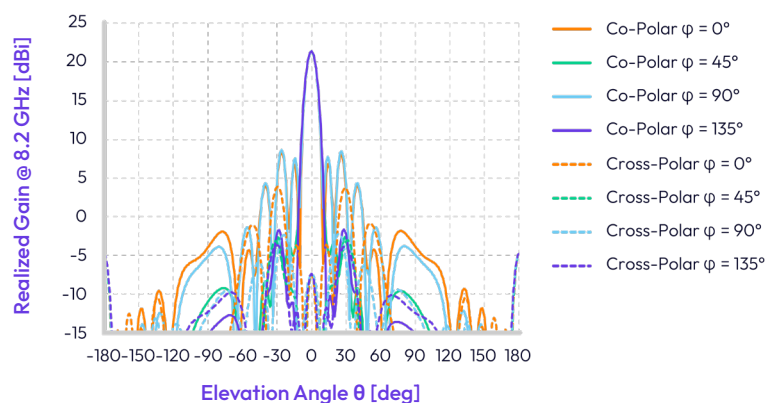
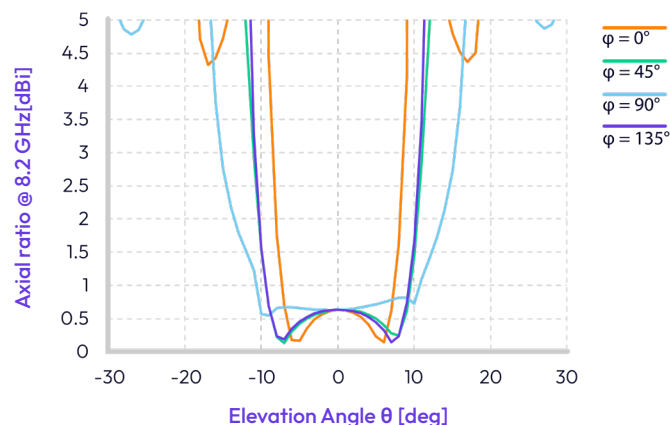
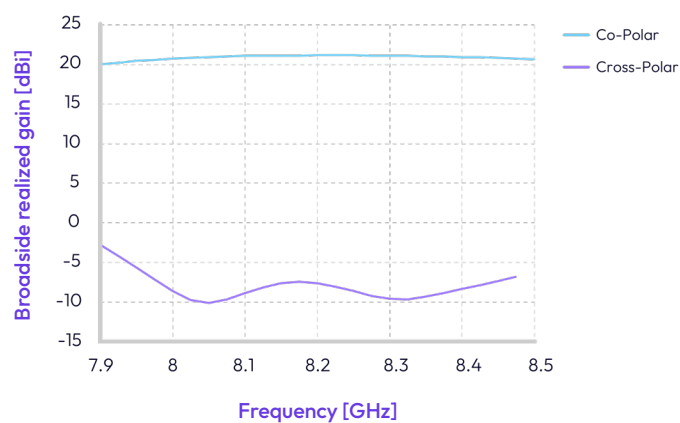
Tx

High Gain

> 20 dBi

Ultra Low Profile

Typical Measured Performance



Typical Measured Performance

Frequency Band	From 7.9 to 8.5 GHz
Bandwidth	600 MHz
Polarization	Right or Left Hand Circular Polarization
Reflection Coefficient	< -18 dB
HPBW	~9° ($\pm 4.5^\circ$ in all planes)
Power Handling	20 W (Either 1x20 W or 2x10 W Continuous Wave)
Realized Gain @8.2 GHz	>20 dBi @boresight < 1 dB from 0° to $\pm 7.5^\circ$ (all Planes)
Axial Ratio @8.2 GHz	< 2 dB from 0° to $\pm 8^\circ$ (all Planes)

Physical Characteristics

Envelope Size (Without Connector)	L 200 x W 200 x H 16 mm ³ Protruding Height: <8 mm
Test-Hat Compatibility	Yes
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