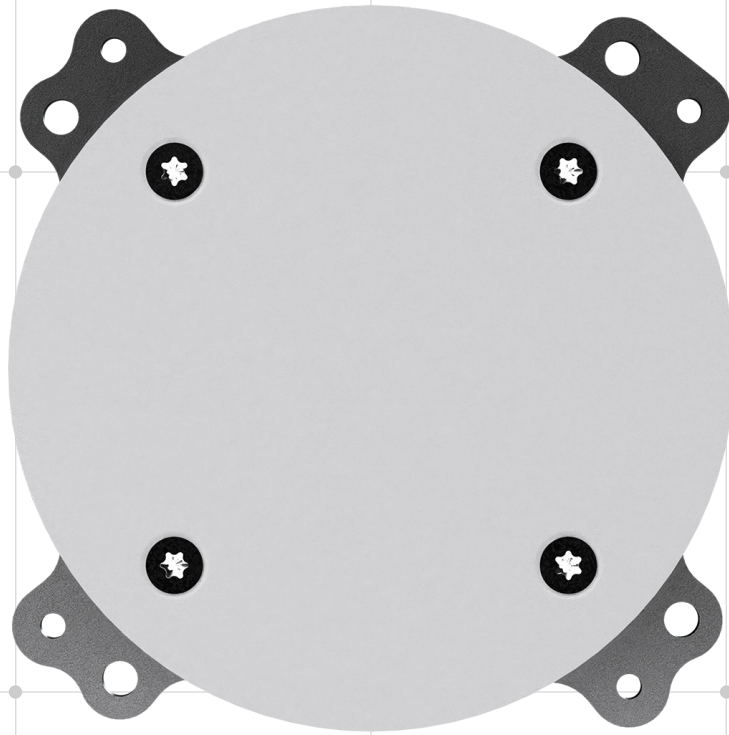


TT&C Antenna

# 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 Hat for S-Band TT&C Antennas.**

Single or Dual-Polarization

Hemispherical Coverage

Wideband

Size < 1U



**Full Duplex Telemetry & Telecommand**



**Dual-Polarization Capable**



**Fully Qualified:**

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



**ITAR-free:**

Suitable for international programs without export restrictions.



**Wide Frequency Band**



**Robust Design:**

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

## Benefits

[anywaves.com](http://anywaves.com)

**ANYWAVES**

# TT&C Antenna

## Compact S-Band TT&C Antenna



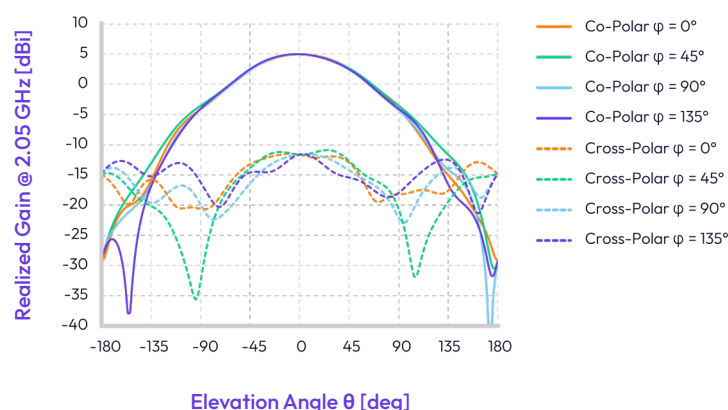
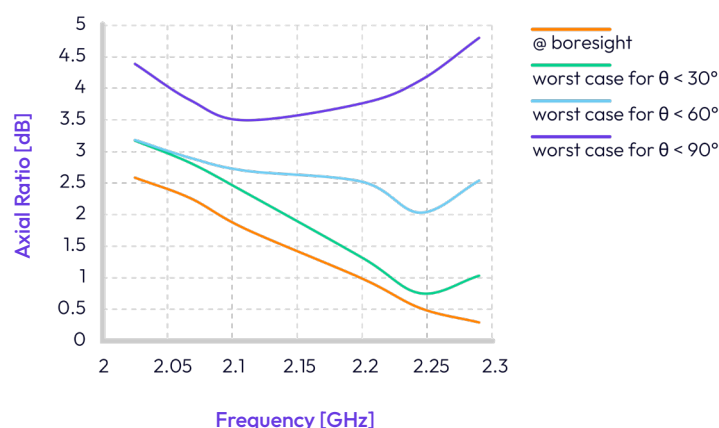
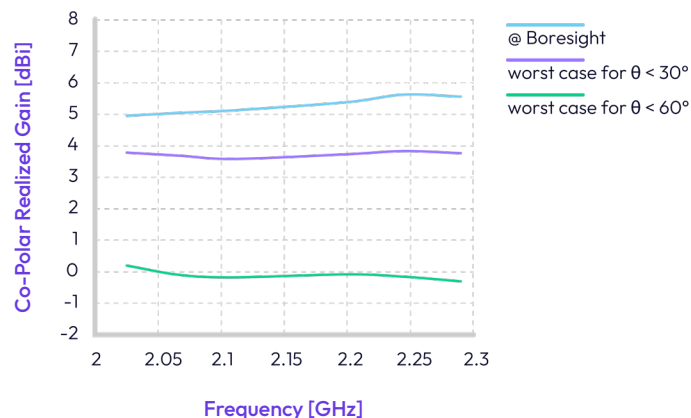
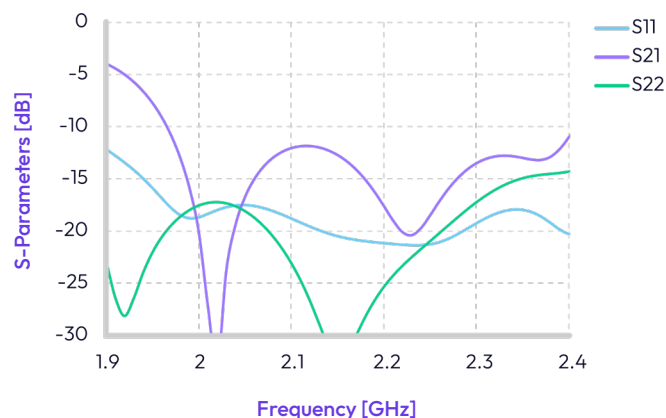
Single or Dual-Polarization

Hemispherical Coverage

Wideband

Size < 1U

## Typical Measured Performance



## Typical Measured Performance

|                        |                                                                                                            |
|------------------------|------------------------------------------------------------------------------------------------------------|
| Frequency Band         | From 1.98 to 2.29 GHz                                                                                      |
| Bandwidth              | > 310 MHz                                                                                                  |
| Polarization           | Right and/or Left Hand Circular Polarization                                                               |
| Reflection Coefficient | RHCP port < -16 dB<br>LHCP port < -16 dB<br>Isolation < -12 dB                                             |
| Power Handling         | 20W Transmit and Receive                                                                                   |
| HPBW                   | > 88° ( $\pm 44^\circ$ in all planes)                                                                      |
| Realized Gain          | Gain @ boresight > 5.4 dBi<br>Gain @ $\pm 30^\circ$ > 4.2 dBi<br>Gain @ $\pm 60^\circ$ > 0.5 dBi           |
| Axial Ratio            | < 3 dB from 0° to $\pm 30^\circ$<br>< 3.5 dB from 0° to $\pm 60^\circ$<br>< 4 dB from 0° to $\pm 90^\circ$ |

## Physical Characteristics

|                                      |                                                                                                                                                                             |
|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Envelope Size<br>(Without Connector) | L 70.9 x W 70.9 x H 10.3 mm <sup>3</sup><br>Protruding height: 3.62 mm                                                                                                      |
| Mass<br>(With Connector)             | SMA: < 106g                                                                                                                                                                 |
| Connector                            | 2 x Coaxial SMP male (50 $\Omega$ )<br>or SMA female (50 $\Omega$ )                                                                                                         |
| Mechanical Interface                 | 4 x M3 (unthreaded hole)                                                                                                                                                    |
| Qualification Temperature            | - 120°C / + 120°C                                                                                                                                                           |
| Protective Radome                    | <b>VESPEL</b> coated with <b>SG121FD</b> white paint<br>(on Flight Models only)<br>resistant to thermal and radiation environments and preventing electrostatic discharges. |
| Acceptance Tests                     | <b>Flight Models</b><br>- Radio Frequency<br>- Mechanical<br>- Thermal<br><b>Engineering Models</b><br>- Radio Frequency Only                                               |