PW2222-101

S-Band RHCP TX 2x2 Antenna

Features

- ✓ Directional pattern and high gain
- ✓ Wide operating temperature range
- ✓ Designed to NASA GEVS (GSFC-STD-7000)
- ✓ TRL 9

Benefits

- ✓ Commercial off-the-shelf (COTS)
- ✓ Acceptance Tests available
- ✓ Compatible Test Hat available
- ✓ Qualified for space applications
- ✓ True circular polarization with extremely low Axial Ratio over the entire frequency band
- ✓ Consultation services available (link budget, architecture and system design)

Product Overview

PW2222-101 is a high-performance downlink antenna designed for high throughput TT&C applications in harsh space environments. It features excellent axial ratio over the entire frequency band, making it ideal for demanding and reliable space communication links.

This antenna is a perfect choice for a variety of space applications, including LEO, MEO and GEO. The S-Band TT&C Antenna is lightweight and easy to integrate. It is also available with Test Hats to facilitate testing and integration.

Related Products

Part Number	Description
PW2222-301	S-Band RHCP TX 2X2 Test Hat
PW2222-100	S-Band RHCP TX Omni Antenna
PW2222-110	S-Band Dual-CP TX Omni Antenna
PW2020-000	Active S-Band RHCP RX Omni Antenna
PW2020-110	S-Band Dual-CP RX Omni Antenna
PW1515-001	Active GPS L1 Antenna

Electrical Specifications

Parameter / Condition	Min	Typ	Max	Unit
Operating Frequency	2200		2290	MHz
Polarization		RHCP		
Axial Ratio		2	3	dB
VSWR			2:1	
Gain	10	11	12	dBic
Pattern Coverage		Directional		
Power Handling	20			W

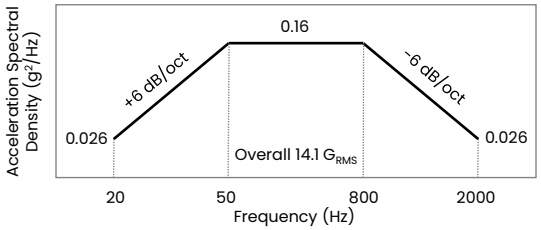
Mechanical Specifications

Parameter / Condition	Value	Unit	Limits
Connector	SMA Female		
Mass	350	g	Max
Compatible Test Hat	PW2222-301		

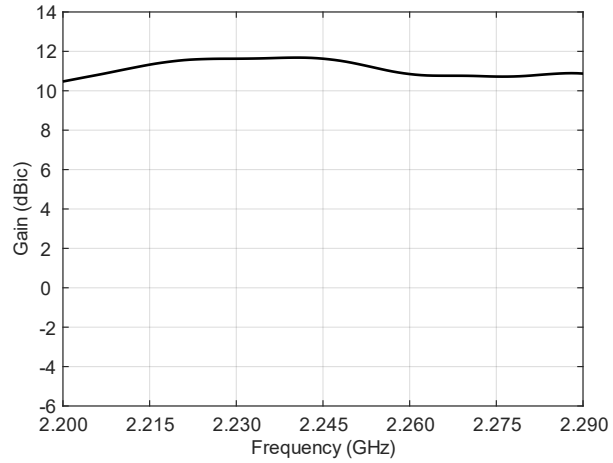
Environmental Specifications

Parameter / Condition	Min	Typ	Max	Unit
Operating Temperature	-70		100	°C
Storage Temperature	-70		100	°C
Vibration	14.1			G_{RMS}

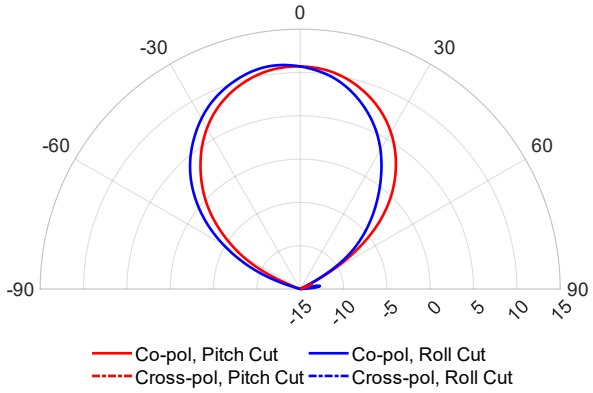
Random Vibration Test Levels
(GSFC-STD-7000)



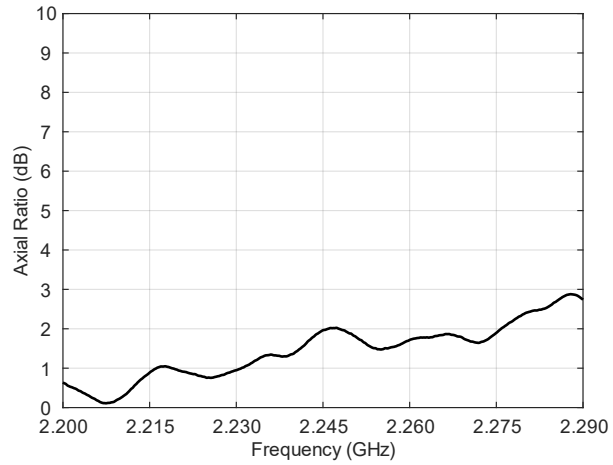
Boresight Gain



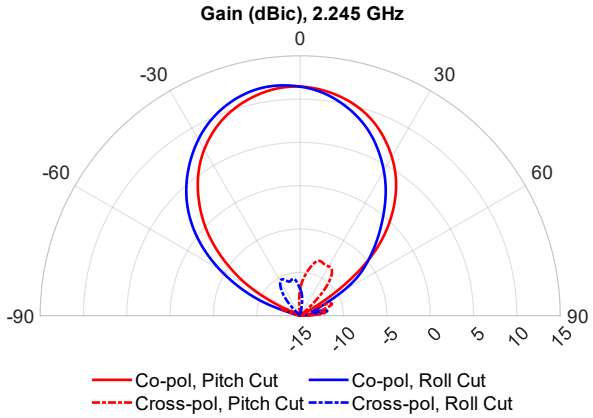
Gain (dBic), 2.203 GHz



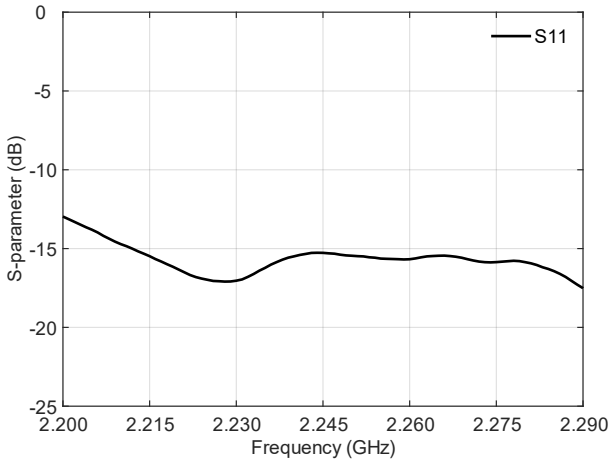
Boresight Axial Ratio



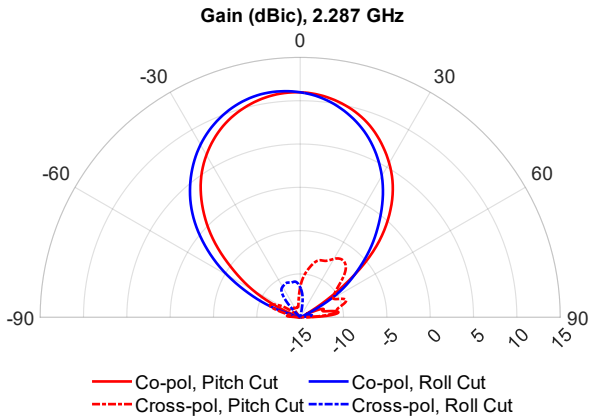
Gain (dBic), 2.245 GHz



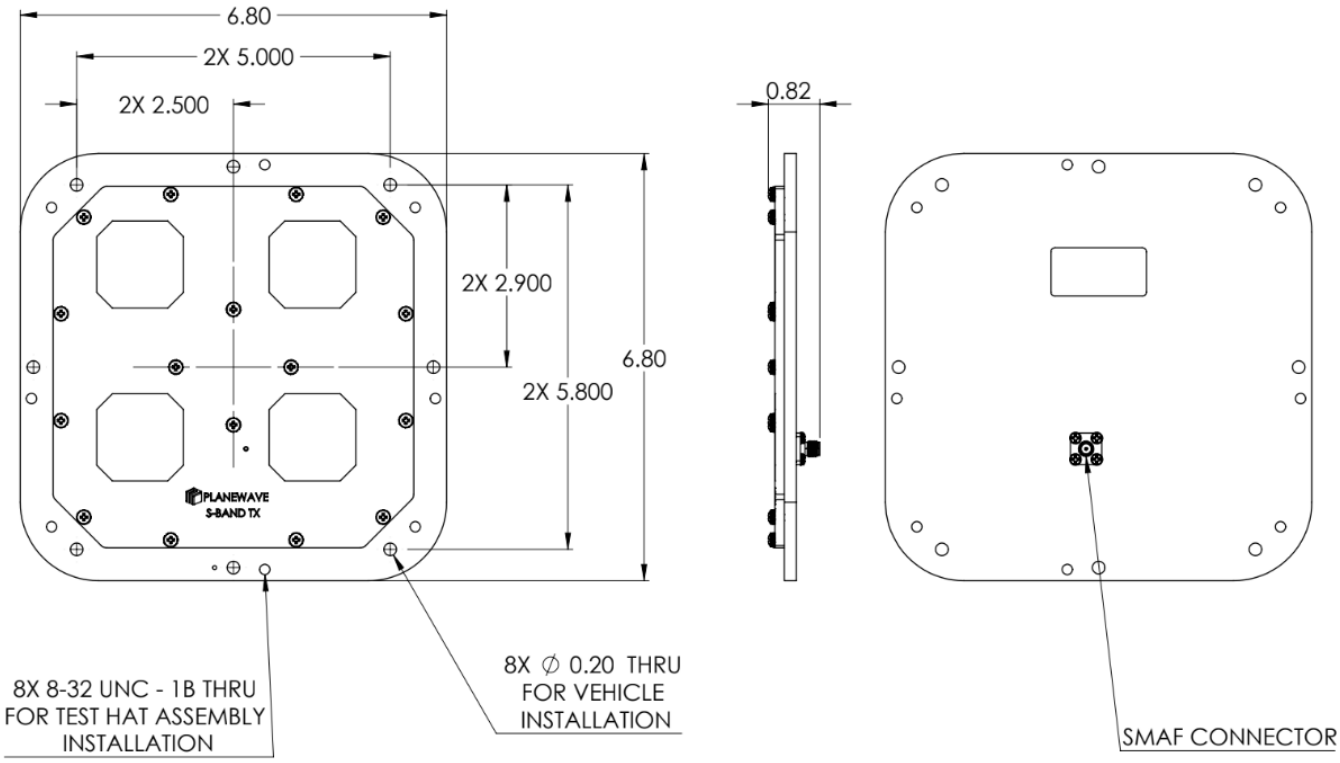
S-parameters



Gain (dBic), 2.287 GHz



Mechanical Outline



Dimensions shown in inches.
Tolerances - Two Place Decimal: ±0.010, Three Place Decimal: ±0.005

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