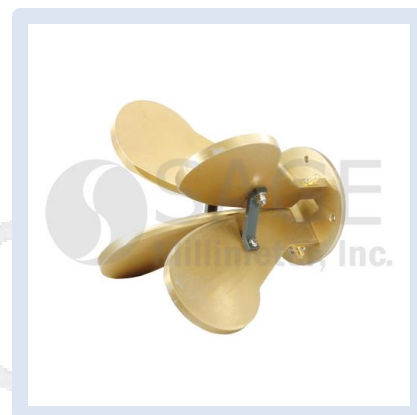




Quad Ridged, Dual Polarized Antenna Feed, 1 to 4 GHz

Description:

Model SAV-0130430883-SF-U4-QR is a quad ridged, dual polarized antenna feed that operates from 1 GHz to 4 GHz. The antenna offers 8.0 dBi nominal gain and a typical half power beamwidth of 68 degrees on the E-plane and 98 degrees on the H-plane. The typical side lobe level is -10 dB and the port isolation is 20 dB at center frequency, respectively. The antenna supports linear polarized waveforms and can form the circular polarized waveform if the two ports are fed with 90 degree phase differenced and equal amplitude signals. The antenna has four 0.20" holes for mounting. The RF ports of the antenna are equipped with two female SMA (F) coaxial connectors.



Features:

- Coaxial Connectors for RF Inputs
- Broadband Operation
- Linear and Circular Polarization
- Good Impedance Match
- High Port Isolation

Applications:

- Antenna Ranges
- Antenna Gain Measurements
- System Setups

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	1.0 GHz		4.0 GHz
Gain		8.0 dBi	
Polarization	Linear and Circular		
3 dB Beamwidth, E-Plane		68°	
3 dB Beamwidth, H-Plane		98°	
Side Lobes		-10 dB	
Port Isolation		20 dB	
Return Loss		9 dB	
Specification Temperature		+25 °C	
Operation Temperature	-45 °C		+85 °C

Mechanical Specifications:

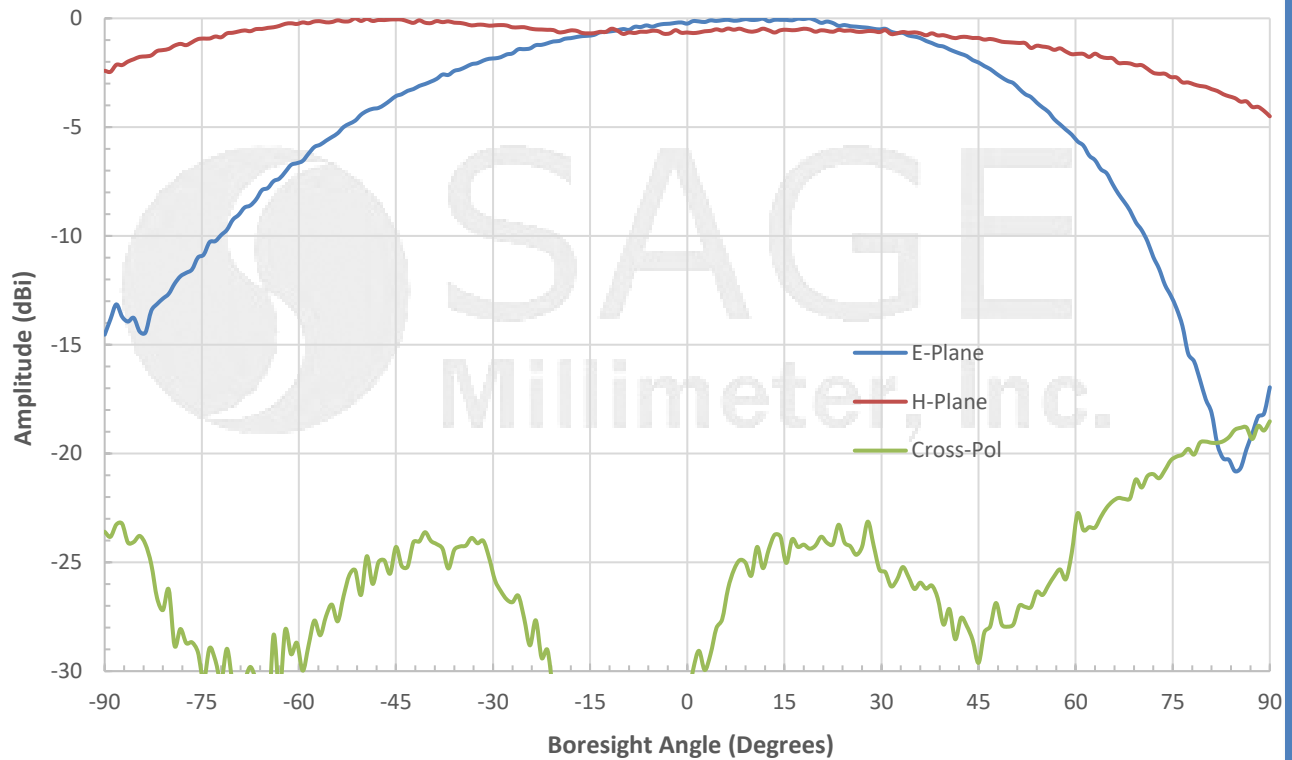
Item	Specification
Antenna Ports	SMA (F) Connectors
Material	Aluminum
Weight	33.88 oz
Finishing	Chem Film
Size	6.57" (L) X 8.08" (W) X 8.08" (H)
Outline	AV-S08-QR-BX1



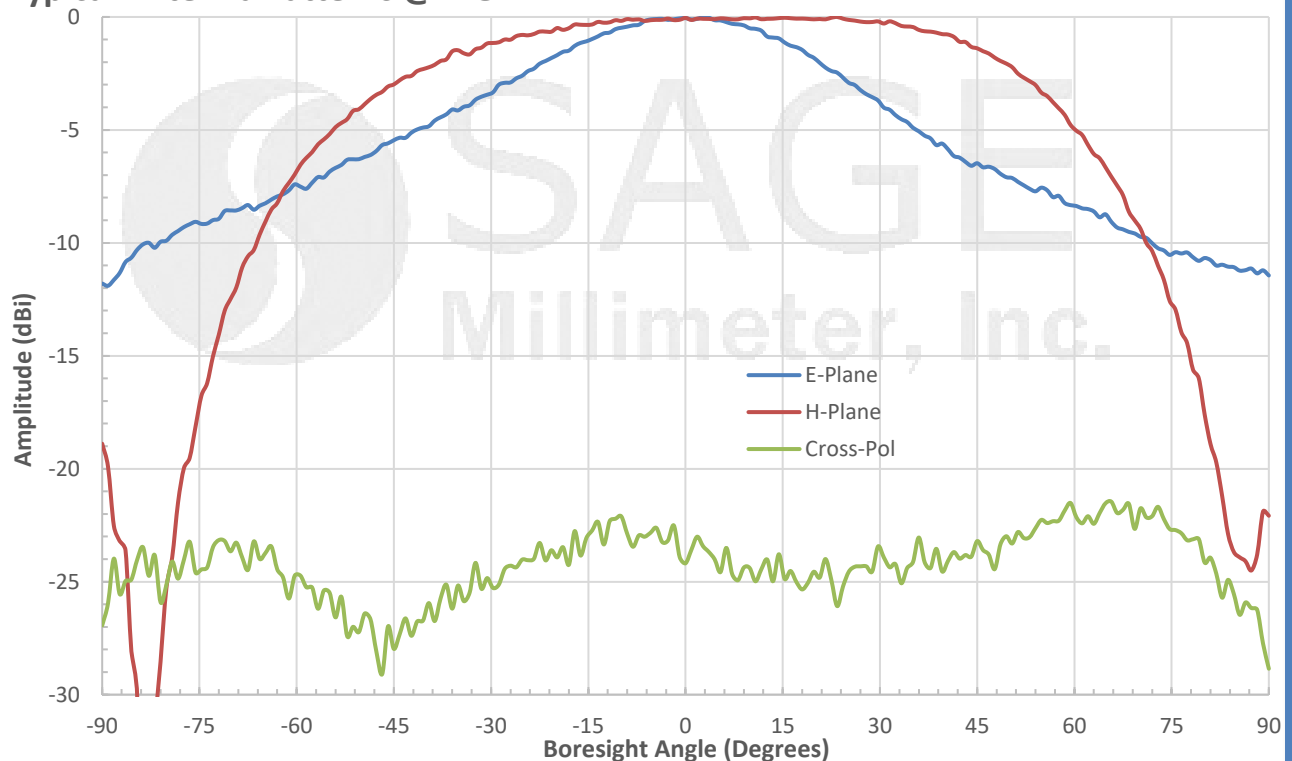


Quad Ridged, Dual Polarized Antenna Feed, 1 to 4 GHz

Typical Antenna Patterns @ 1 GHz



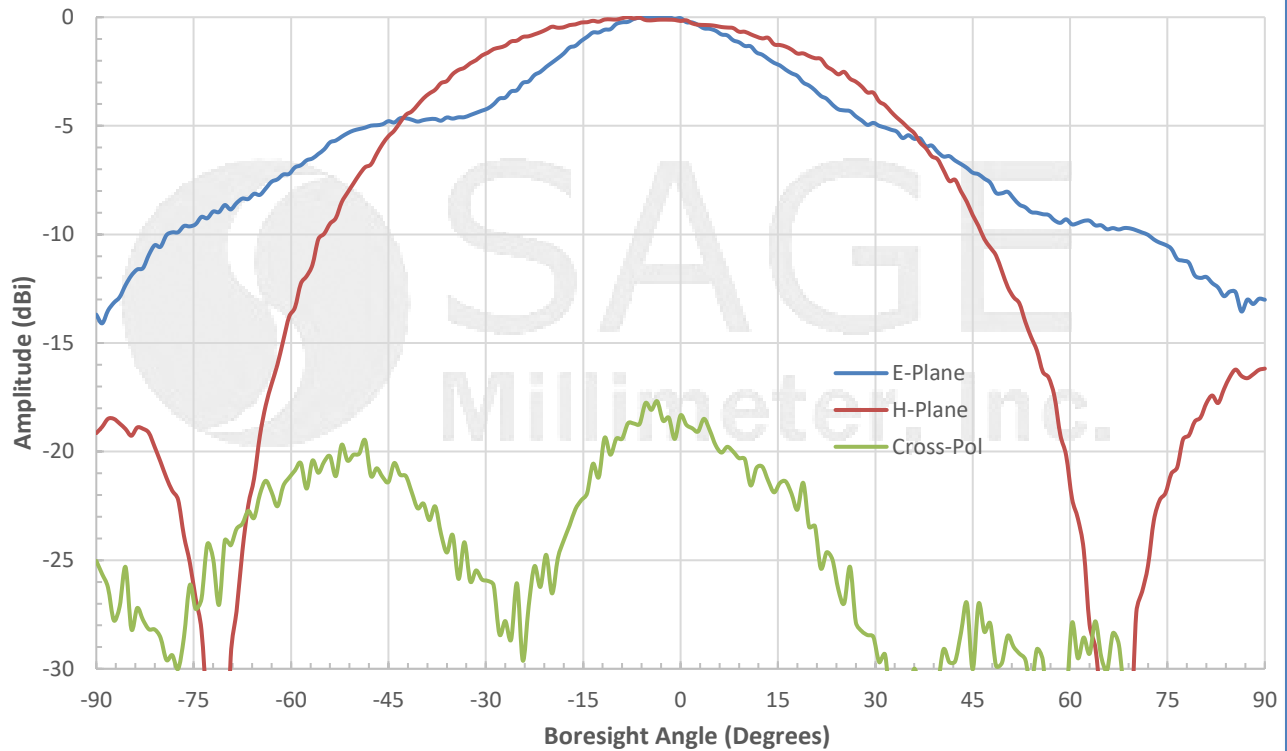
Typical Antenna Patterns @ 2 GHz



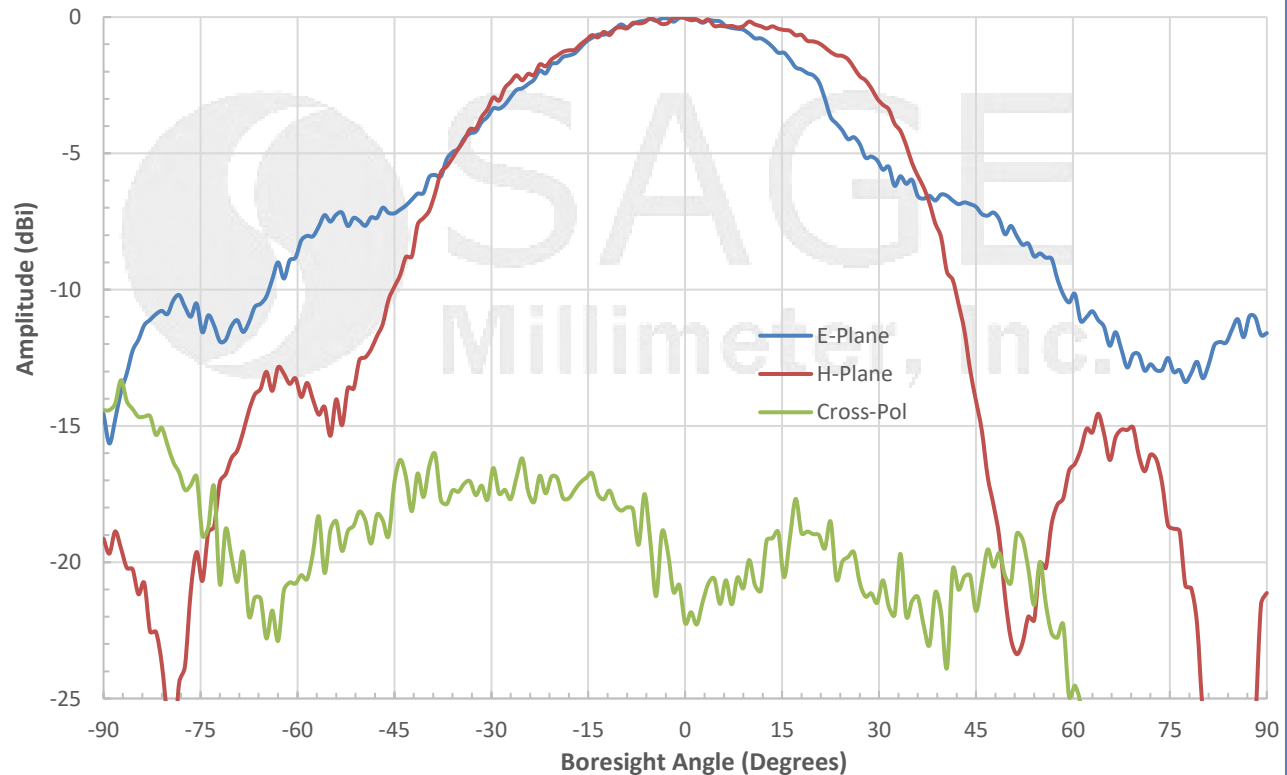


Quad Ridged, Dual Polarized Antenna Feed, 1 to 4 GHz

Typical Antenna Patterns @ 3 GHz



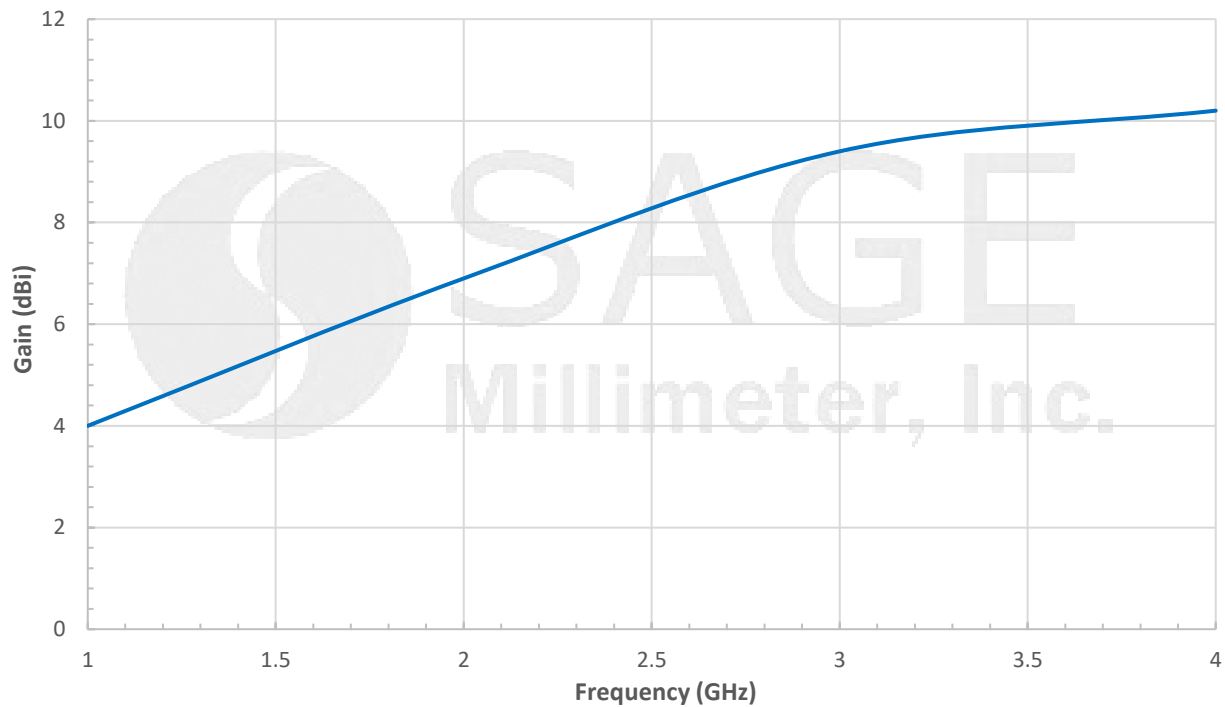
Typical Antenna Patterns @ 4 GHz



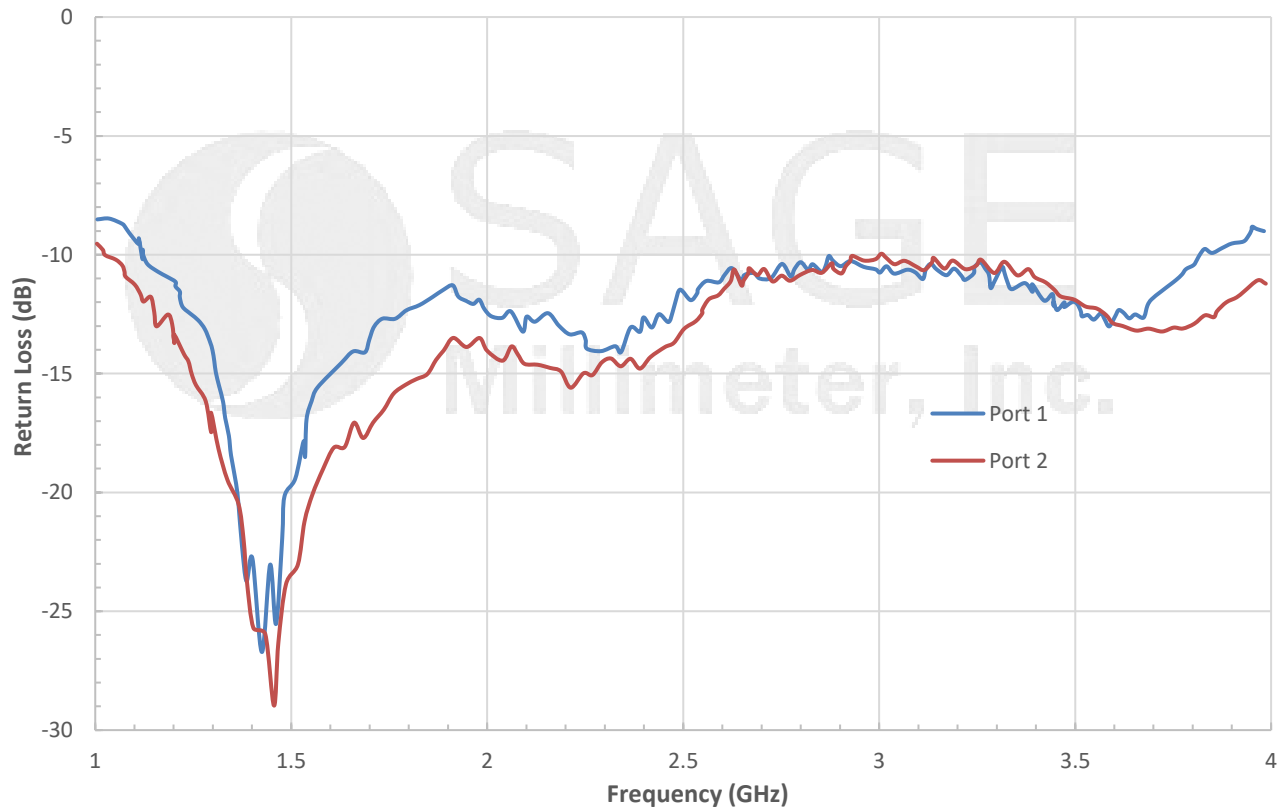


Quad Ridged, Dual Polarized Antenna Feed, 1 to 4 GHz

Measured Gain vs. Frequency



Measured Return Loss vs. Frequency

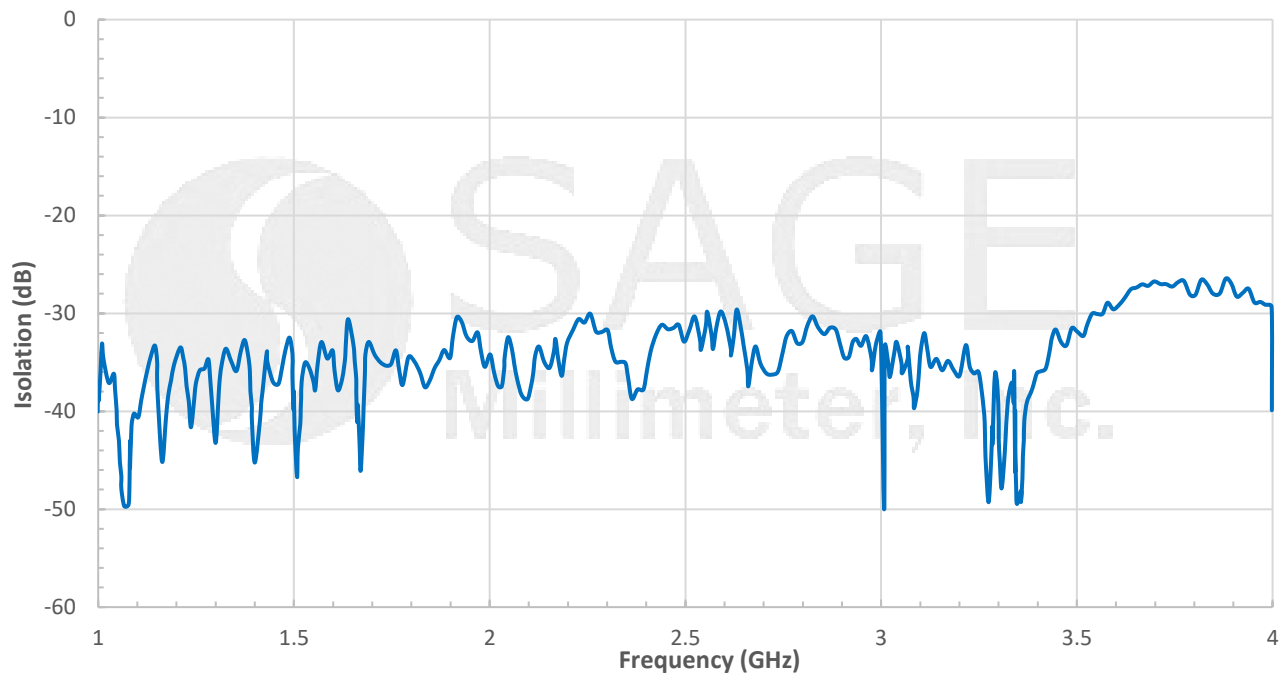


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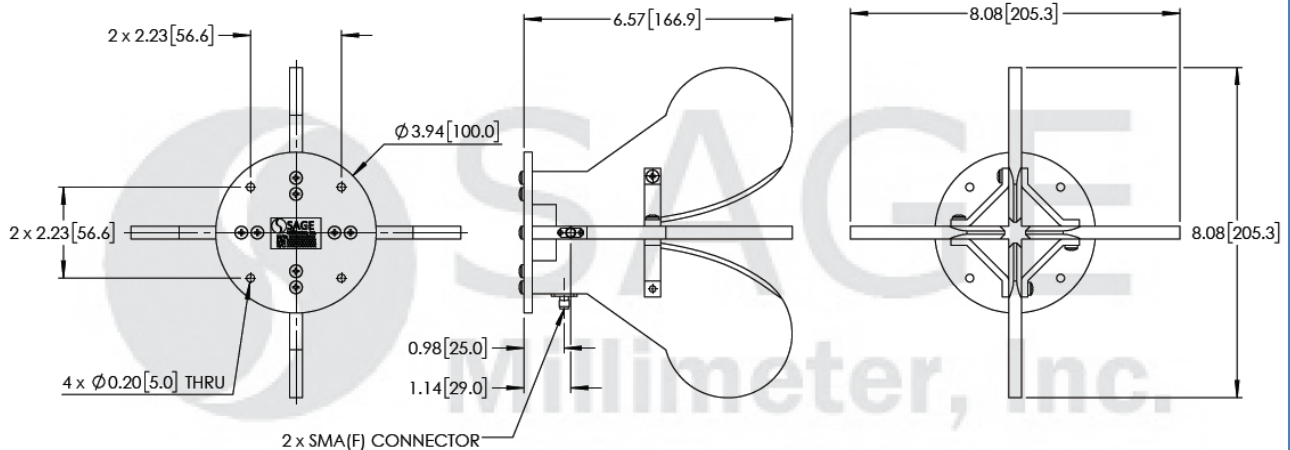


Quad Ridged, Dual Polarized Antenna Feed, 1 to 4 GHz

Measured Port Isolation vs. Frequency



Mechanical Outline: (Unless otherwise specified, all dimensions are in inches [millimeters])



Note:

- All data presented is collected from a sample lot. Actual data may vary unit to unit.
- SAGE Millimeter, Inc. reserves the right to change the information presented without notice.

Caution:

- Any foreign objects in the antenna will cause performance degradation and possible device damage.
- Proper torque, 8.0 ± 0.15 inch-pounds (0.90 ± 0.02 Nm), should be applied. **SAGE Millimeter torque wrench, model SCH-08008-S1, is highly recommended.**

