SAL-2734032309-28-S1-DP-WR

Rev. 1.0

Ka-Band Dual Polarized Lens Corrected Antenna

Description:

Model SAL-2734032309-28-S1-DP-WR is a full band, dual polarized, WR-28 lens corrected antenna assembly that operates between 26.5 and 40 GHz. The antenna features an integrated orthomode transducer (OMT) that provides high port isolation and high cross-polarization cancellation. The OMT enables the antenna to separate a circular or elliptical polarized waveform into two linear, orthogonal waveforms or combine two linear polarized waveforms into one circular or elliptical polarized waveform or vice versa. Excellent aperture efficiency and low side lobe levels are achieved with a low loss lens. A weather resistant configuration makes the antenna suitable for outdoor use. The horizontal and vertical ports are WR-28 waveguides with UG-599/U flanges and 4-40 threaded holes.

Features:

- High Isolation
- Low Insertion Loss
- Full Band Performance
- High Crosspol Rejection

Applications:

- Radar Systems
- Communication Systems
- Circular and Linear Waveform Separation and Combination

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	26.5 GHz		40.0 GHz
Gain		23 dBi	
3 dB Beamwidth		9°	
Isolation		45 dB	
Cross Polarization		35 dB	
Specification Temperature		+25 ˚C	
Operating Temperature	-40 ˚C		+85 ˚C

Mechanical Specifications:

Item	Specification
Horizontal and Vertical Ports	WR-28 Waveguide
Flange Type	UG-599/U with 4-40 Threaded Holes
Finish	Black Anodized
Weight	2.7 lb
Size	3.50” (Ø) x 8.14” (L)
Outline	AL-RA2-DP-WR

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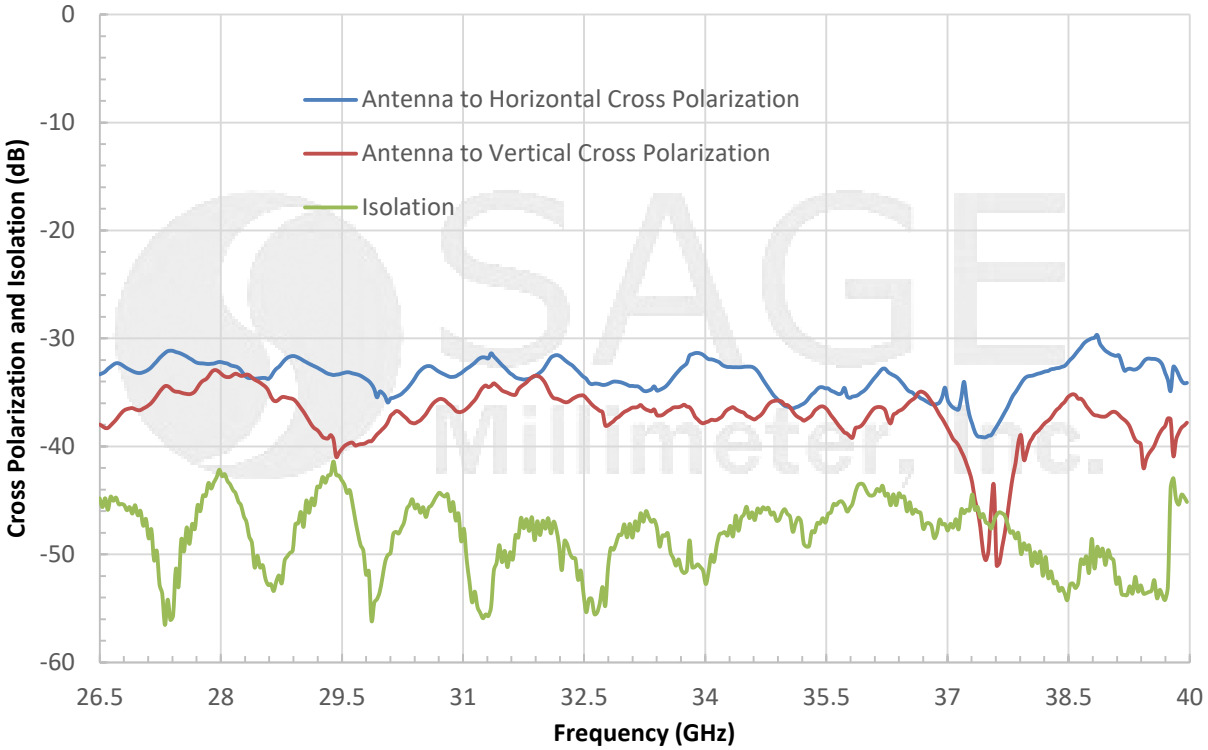
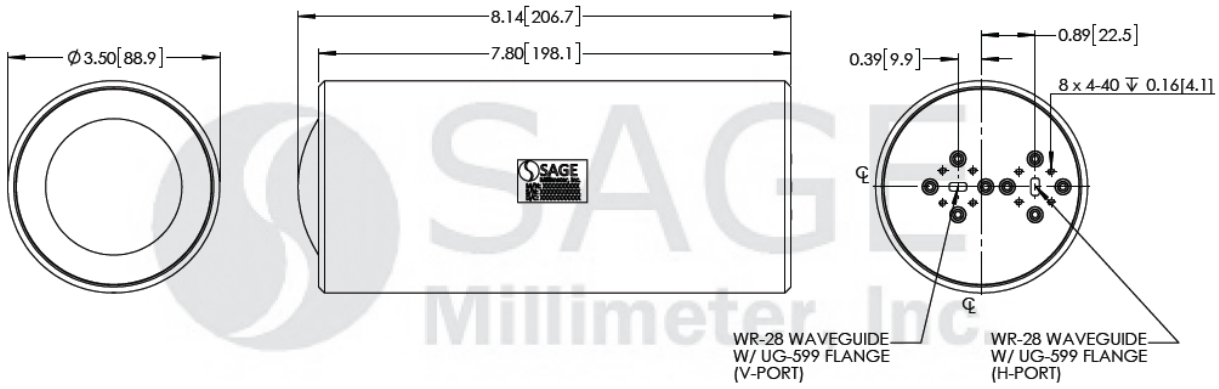
Typical Cross Polarization and Isolation vs. Frequency



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.
- All testing was performed under +25˚C room temperature.
- 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.

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