SAF-4036031725-219-S1

Advanced

WR-19 Scalar Feed Horn Antenna, 40 to 60 GHz, 17 dBi

Description:

Model SAF-4036031725-219-S1 is a WR-19 scalar feed horn antenna that operates from 40 to 60 GHz. At center frequency, the horn antenna exhibits 17 dBi nominal gain and a typical half power beamwidth of 25 degrees. The antenna has a return loss of 20 dB, and -25 dB side lobe levels on the E-Plane and H-Plane. The antenna is equipped with a 0.219" diameter circular waveguide that supports both linear and circular polarization. A rectangular waveguide port configuration that only supports linear polarization is available under a different model number.

Features:

- Circular Waveguide Interface
- Precisely Machined
- Low Side Lobe Levels
- High Return Loss
- Linear and Circular Polarization

Applications:

- Feed Horn for Gaussian Optical Antennas
- Feed Horn for Cassegrain Antennas
- Rapid System Setups
- Engineering Setups

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	40 GHz		60 GHz
Gain		17 dBi	
3 dB Beamwidth, E-plane		25°	
3 dB Beamwidth, H-plane		25°	
Side Lobe, E-Plane		-25 dB	
Side Lobe, H-Plane		-25 dB	
Return Loss		20 dB	
Polarization		Linear and Circular	
Specification Temperature		+25 ˚C	
Operating Temperature	-40 ˚C		+85 ˚C

Mechanical Specifications:

Item	Specification
Antenna Port	0.219" Diameter Circular Waveguide
Flange Type	UG-383/U-M
Material	Brass
Finish	Gold Plated
Weight	7.2 oz
Size	2.50" (L) x 1.125" (Ø)
Outline	AF-CU17-219

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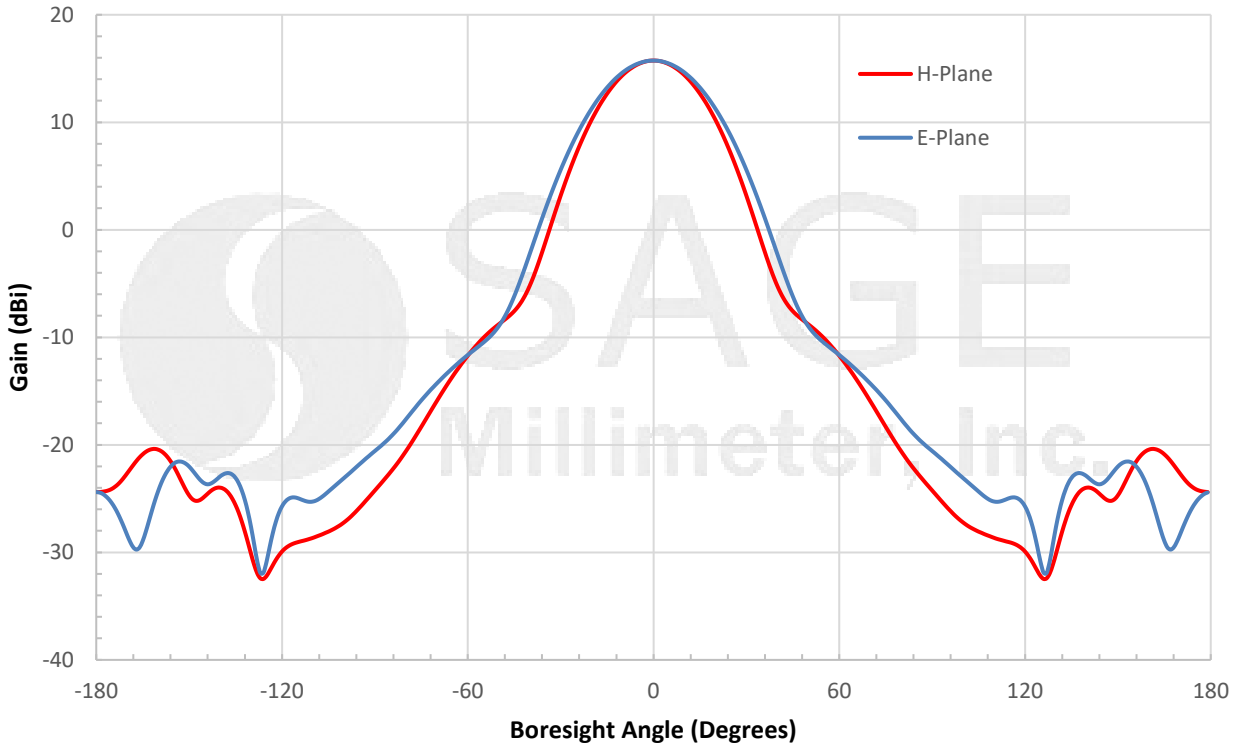
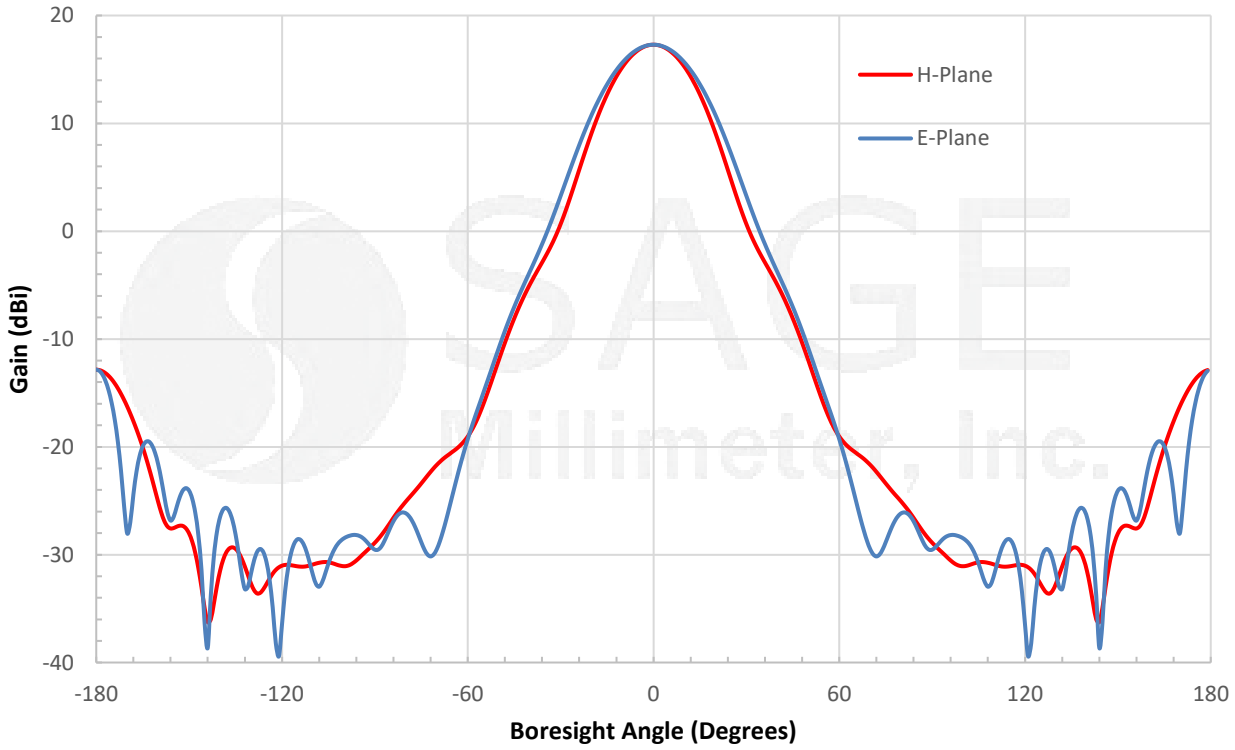
WR-19 Scalar Feed Horn Antenna, 40 to 60 GHz, 17 dBi

Simulated Antenna Patterns @ 40 GHz



Simulated Antenna Patterns @ 50 GHz



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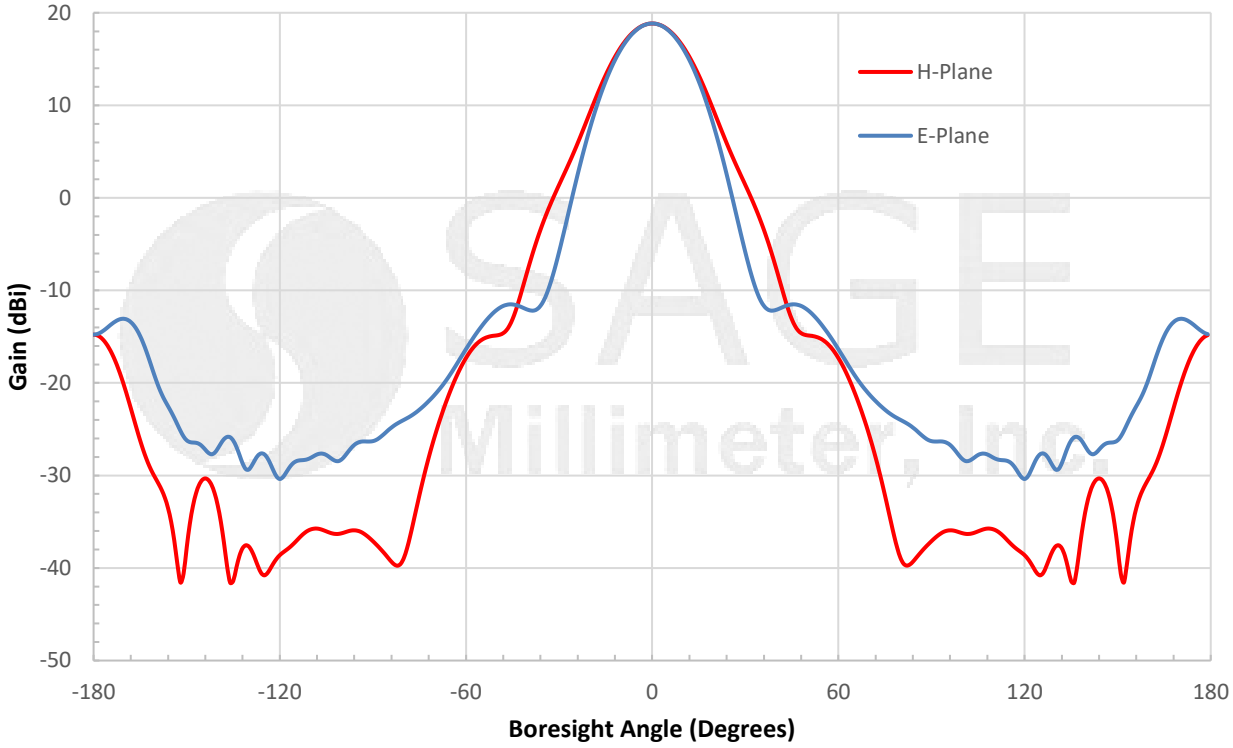
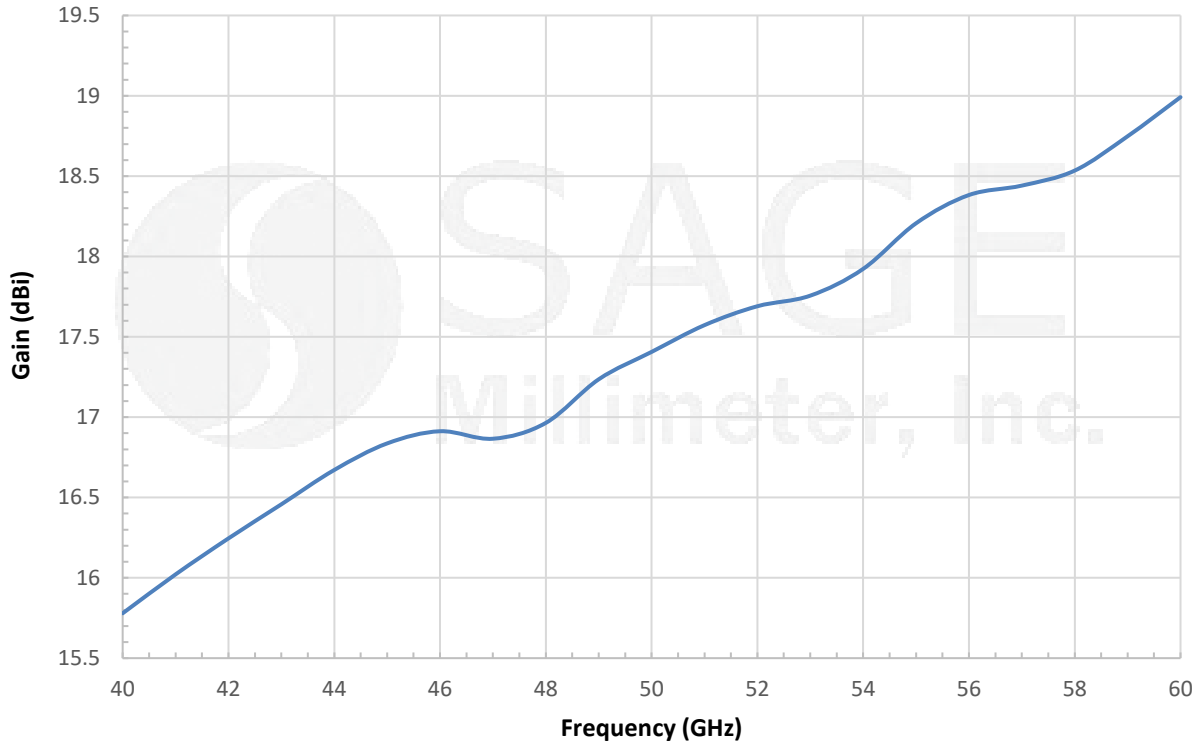
WR-19 Scalar Feed Horn Antenna, 40 to 60 GHz, 17 dBi

Simulated Antenna Patterns @ 60 GHz



Simulated Gain vs. Frequency



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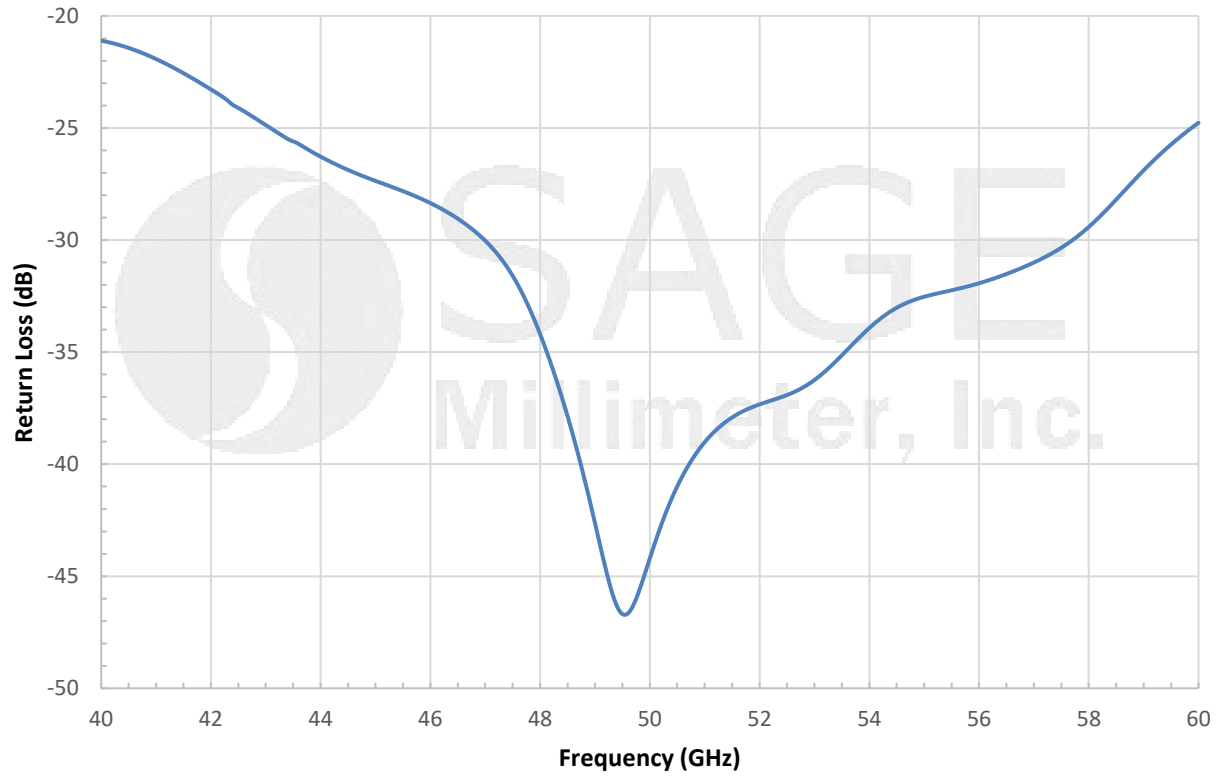
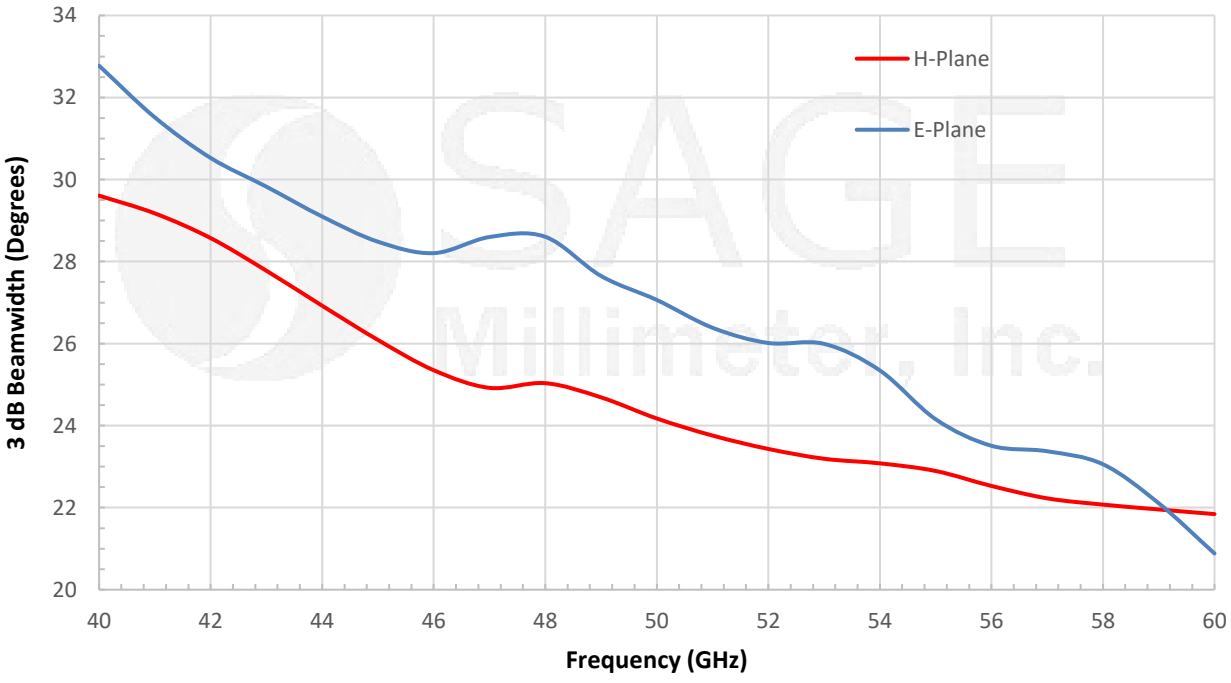
Simulated Return Loss vs. Frequency



Simulated 3 dB Beamwidth vs. Frequency



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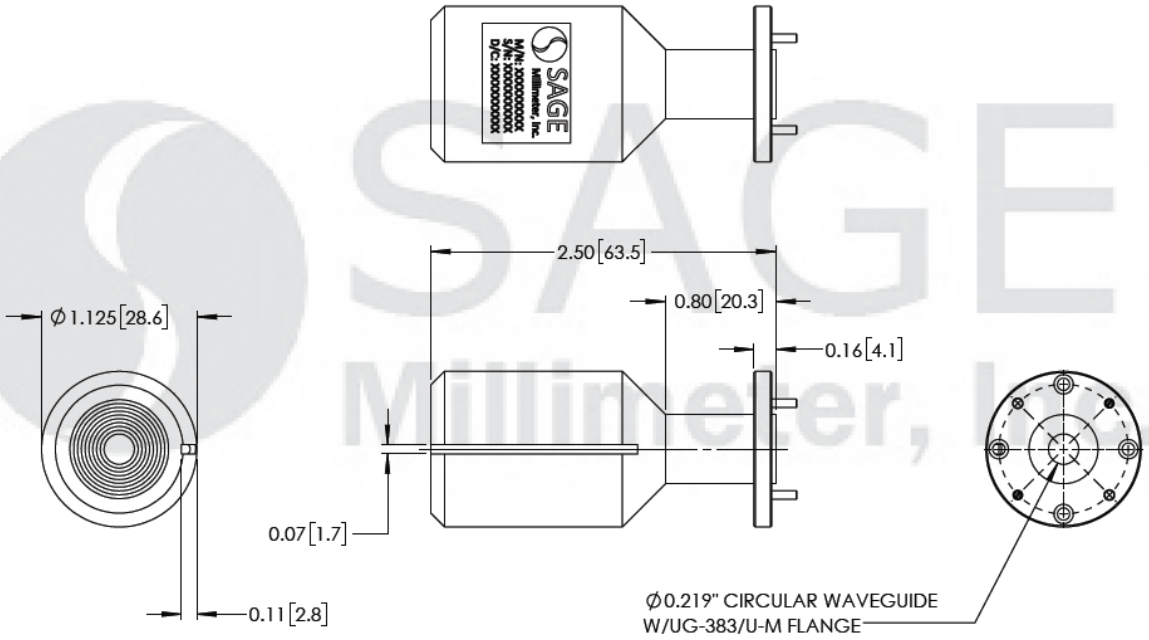
Mechanical Outline: (Unless otherwise specified, all dimensions are in inches [millimeters])



Note:

- All data presented is simulated. Actual data may vary.
- 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.