



W Band Cassegrain Antenna, 87 to 100 GHz, 50 dBi, 24” Dish

Description:

Model SAY-8731045005-10-S1 is a Cassegrain antenna that offers a nominal gain of 50 dBi and a half power beamwidth of 0.5 degrees typically across the frequency range of 87 to 100 GHz. The main reflector is fabricated with fiber glass to offer a light weight and rugged mechanical structure. The corrugated horn is used to provide the best feed efficiency and the most uniform illumination. The input port is a WR-10 waveguide with a UG-387/U-M flange. The antenna can support linear polarized waveform and is designed and manufactured for indoor applications. By removing the mode transition, SAGE Millimeter model SWT-10094-SB, the input port becomes a 0.094” diameter circular waveguide that can support both linear and circular polarized waveforms.



Features:

- Rugged Configuration and Low Profile
- Low Loss and High Gain
- High Return Loss

Applications:

- Communication Systems
- Radar Systems
- EW Systems

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	87 GHz		100 GHz
Gain		50 dBi	
3 dB Beamwidth		0.5°	
Side Lobes		-15 dB	
Return Loss		14 dB	
Specification Temperature		+25 °C	
Operating Temperature	-40 °C		+85 °C

*The antenna will cover a broader frequency range with some performance degradations

Mechanical Specifications:

Item	Specification
RF Connector	WR-10 Waveguide with a UG-387/U-M Flange
RF Connector Material	Brass
RF Connector Finish	Gold Plated
Reflector Material	Fiber Glass
Reflector Finish	Polyamide Epoxy Paint
Weight	12 Lbs.
Reflector Diameter	24”
Outline	AY-CW50-24

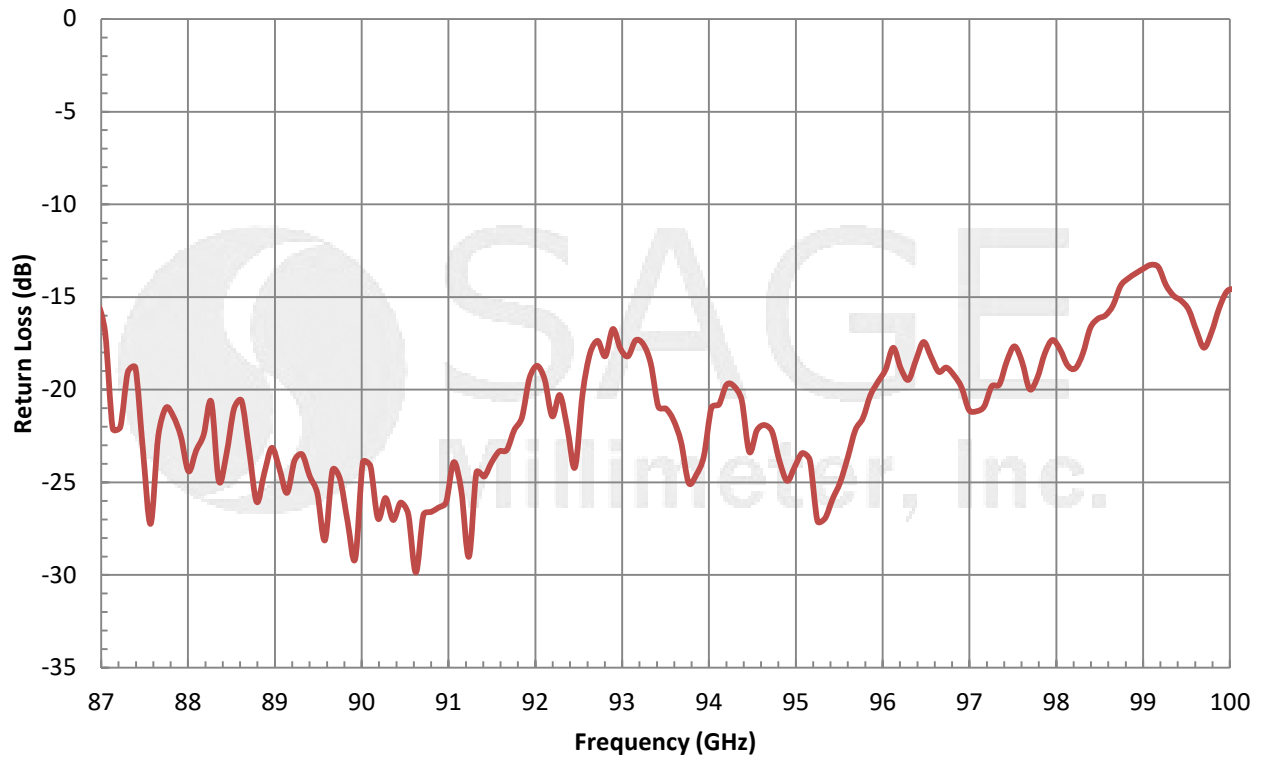


www.sagemillimeter.com | 3043 Kashiwa Street, Torrance, CA 90505
 Phone: 424-757-0168 | Fax: 424-757-0188 | Email: sales@sagemillimeter.com

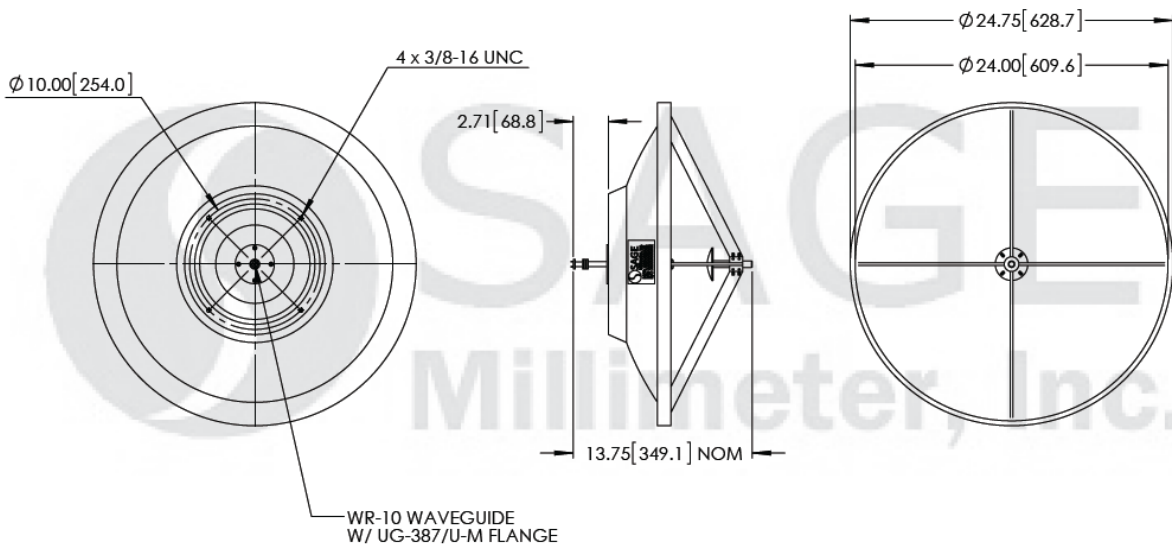


W Band Cassegrain Antenna, 87 to 100 GHz, 50 dBi, 24" Dish

Typical Return Loss vs. Frequency



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





W Band Cassegrain Antenna, 87 to 100 GHz, 50 dBi, 24” Dish

Note:

- The aiming scope is provided to assist the antenna’s directional alignment.
- The return loss 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 mechanical impact will damage the antenna.
- Any foreign objects in the waveguide will degrade the performance of the antenna or damage the antenna.

