SFS-27340315-28SFSF-N1-M

Rev. 1.1

Ka-Band Subharmonically Pumped Mixer, 26.5 to 40 GHz

Description:

Model SFS-27340315-28SFSF-N1-M is a Ka Band subharmonically pumped mixer that utilizes a high performances GaAs MMIC to offer superior RF performance. The mixer provides a conversion loss of 15 dB over the RF frequency range of 26.5 to 40 GHz with the IF frequency of 1.0 to 2.0 GHz. The mixer requires an LO signal from 13.25 to 20 GHz at a nominal +13 dBm. In addition, the subharmonically pumped mixer offers high LO to IF and RF to LO isolations.

Features:

- LO Frequency at Half of RF Frequency
- Flat Conversion Loss
- High Port Isolations

Applications:

- Radar Systems
- Communication Systems
- Test Equipment

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
RF Frequency	26.5 GHz		40 GHz
LO Frequency	13.25 GHz		20 GHz
IF Frequency	1.0 GHz		2.0 GHz
LO Pumping Power		+13 dBm	
Conversion Loss		15 dB	
LO to IF Isolation		55 dB	
RF to LO Isolation		22 dB	
Combined RF & LO Damage Power			+23 dBm
Specification Temperature		+25 ˚C	
Operating Temperature	0 ˚C		+50 ˚C

Mechanical Specifications:

Item	Specification
RF Port	WR-28 Waveguide with UG-599/U Flange
LO Port	SMA(F)
IF Port	SMA(F)
Housing Material	Aluminum
Finishing	Gold Plated
Weight	0.6 Oz
Size	0.80” (L) x 1.14” (W) x 0.75” (H)
Outline	FS-NAM

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

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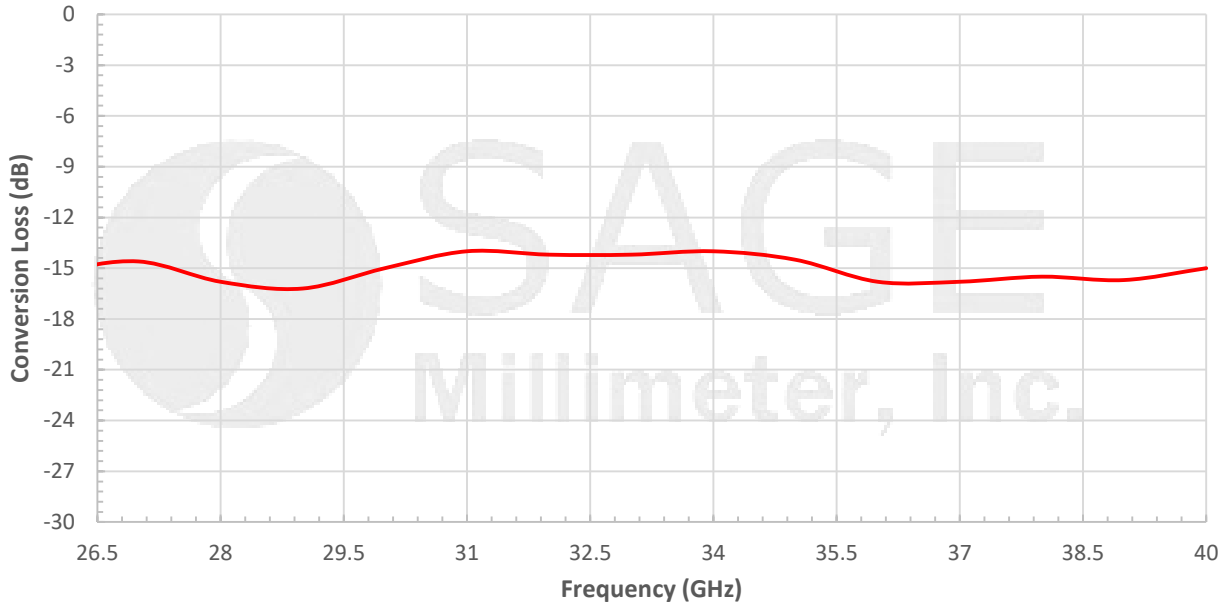
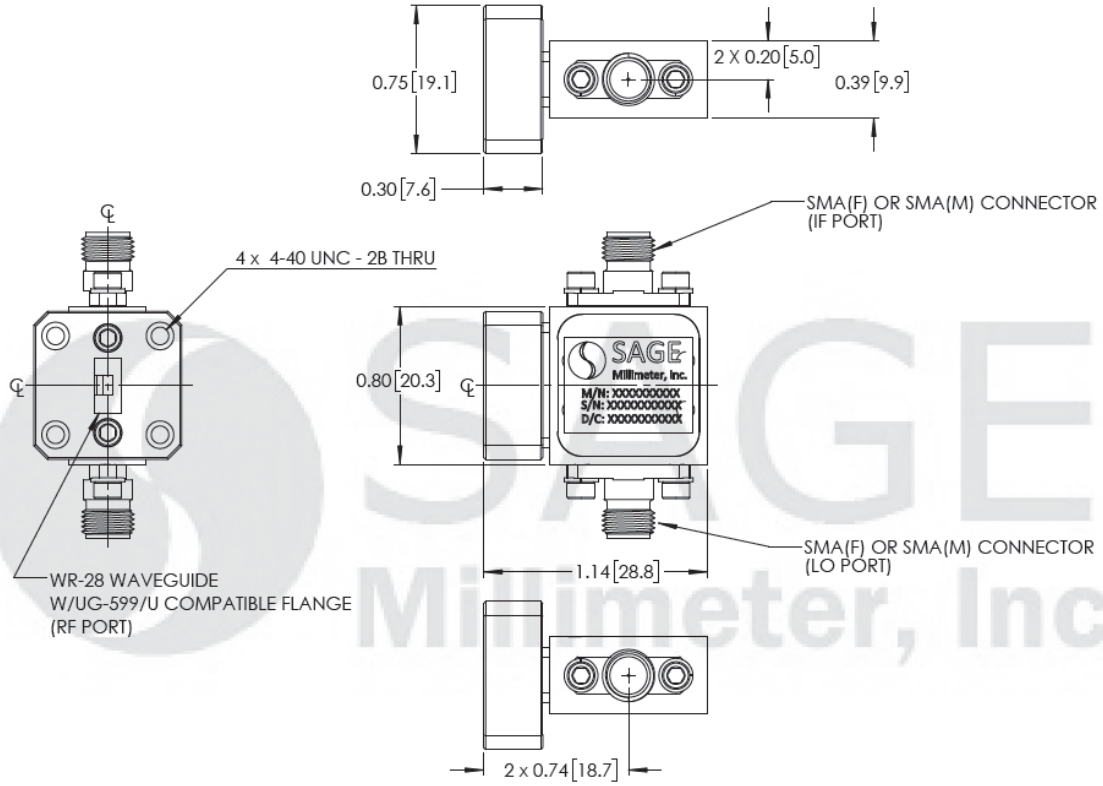
Typical Conversion Loss vs. Frequency

LO Power: +13 dBm; IF: 1 GHz



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



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Note:

- All data presented is collected from a sample lot. Actual data may vary unit to unit, slightly.
- All testing was performed under +25°C case temperature.
- SAGE Millimeter, Inc. reserves the right to change the information presented without notice.

Caution:

- Exceeding absolute maximum ratings shown will damage the device.
- The device is static sensitive. Always follow ESD rules when working with the device.
- The IF port of the mixer is DC coupled. Use DC block when connect to other device. **Any external bias voltage applied to IF port will damage the mixer.**
- Any foreign objects in the waveguide will cause performance degradation and possible device damage.

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