SFP-06212-S2

Rev. 1.1

D-Band X2, Passive Frequency Multiplier, 110 to 170 GHz

Description:

Model SFP-06212-S2 is a D-Band, X2 passive multiplier that utilizes GaAs Schottky, beam-lead diodes and a balanced circuit configuration to generate 2nd order harmonics with good harmonic and fundamental suppression. This multiplier requires an input frequency range of 55 to 85 GHz at +16 dBm RF power to yield typical 110 to 170 GHz at 0 dBm output power. The multiplier is equipped with a WR-12 waveguide and UG-387/U anti-cocking flange as its input port and a WR-06 waveguide and UG-387/U-M anti-cocking flange as its output port.

Features:

- Minimal Conversion Loss
- No External Bias
- Compact Package

Applications:

- Source Modules
- Frequency Extenders
- Radar and Communication Systems

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Input Frequency	55 GHz		85 GHz
Output Frequency	110 GHz		170 GHz
Input Power	+15 dBm	+16 dBm	
Damage Input Power			+18 dBm
Output Power		0 dBm	
Harmonic Suppression		20 dB	
Specification Temperature		+25 °C	
Operating Temperature	0 °C		+50 °C

Mechanical Specifications:

Item	Specification
RF Input	WR-12 Waveguide with UG-387/U Anti-Cocking Flange
RF Output	WR-06 Waveguide with UG-387/U-M Anti-Cocking Flange
Material	Aluminum
Finish	Gold Plated
Weight	0.4 Oz
Size	1.00” (L) x 0.75” (W) x 0.75”(H)
Outline	FP-DE2-A

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

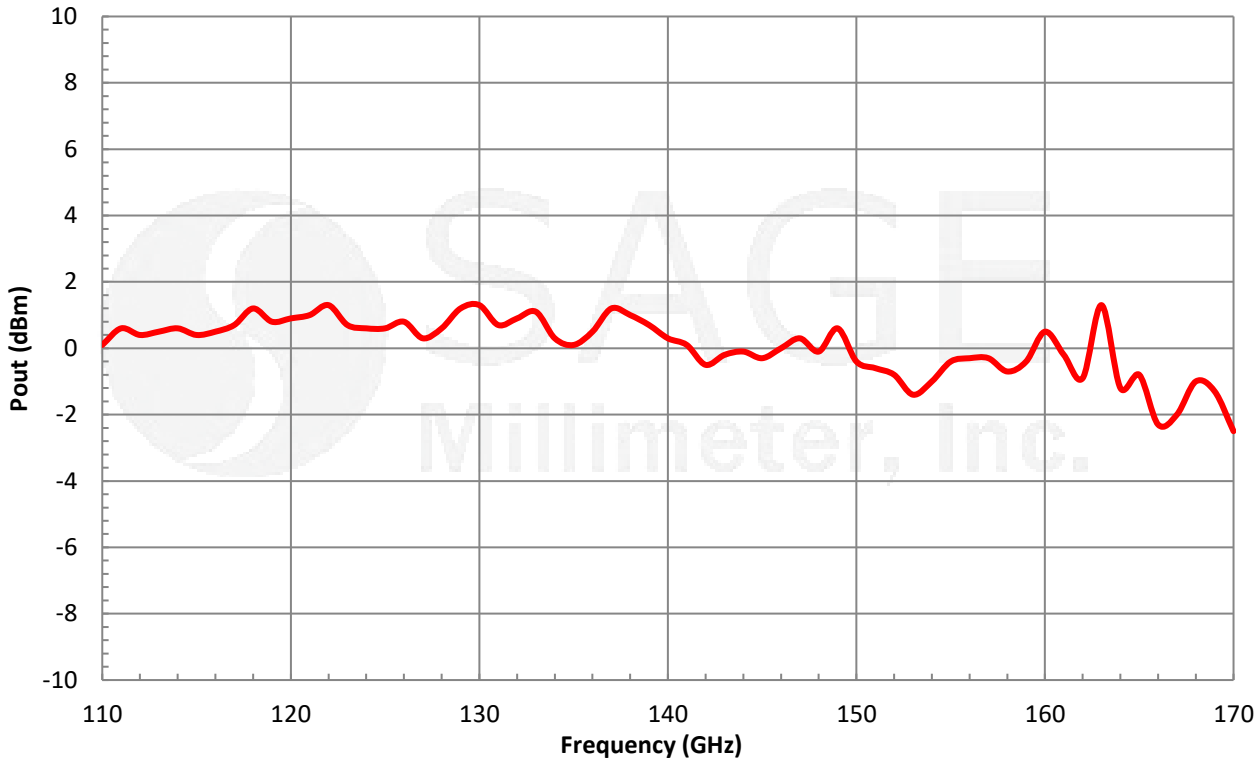
Copyright © 2018 by SAGE Millimeter, Inc.

SAGE Millimeter, Inc.

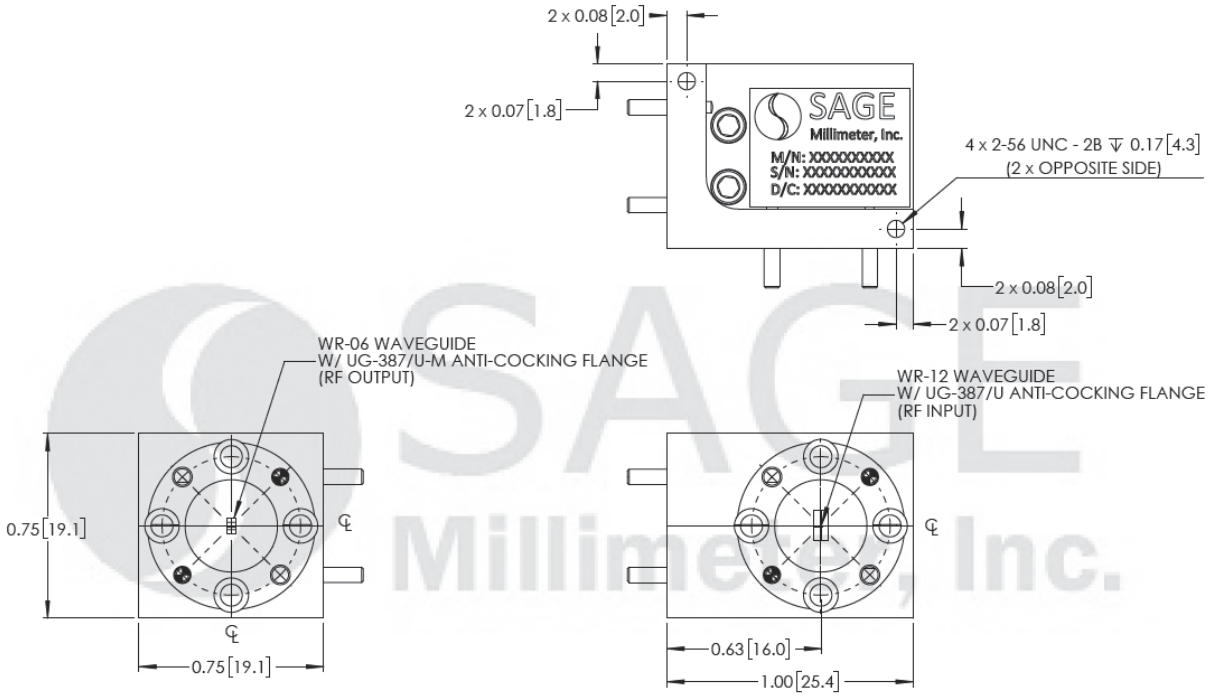
D-Band X2, Passive Frequency Multiplier, 110 to 170 GHz

Typical Performance vs Frequency

Input Power = +15 dBm



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



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

Copyright © 2018 by SAGE Millimeter, Inc.

SAGE Millimeter, Inc.

D-Band X2, Passive Frequency Multiplier, 110 to 170 GHz

Note:

- All data presented is collected from a sample lot. Actual data may vary unit to unit.
- 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 of the multiplier will damage the device.
- Any foreign objects in the waveguide will cause performance degradation and possible device damage.
- The multiplier is a static sensitive device. Always follow ESD rules when working with the multiplier.

SAGE Millimeter, Inc.

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

Copyright © 2018 by SAGE Millimeter, Inc.