SFP-15228-S1

Rev. 1.1

V-Band X2 Passive Frequency Multiplier

Description:

Model SFP-15228-S1 is a V-Band, X2 passive multiplier that utilizes GaAs Schottky, beam-lead diodes and a balanced circuit configuration to generate second order harmonics with good harmonic and fundamental suppression. This multiplier has an input frequency range of 25 to 37.5 GHz at +20 dBm RF power to yield 50 to 75 GHz at +5 dBm. The multiplier is equipped with a WR-28 waveguide with a UG-599/U flange as its input port and a WR-15 waveguide with a UG-385/U flange as its output port. Other interface configurations are offered under different model numbers.

Features:

- Full Waveguide Operation
- No External Bias Required
- Balanced Configuration for Low Harmonic Emissions

Applications:

- Source Modules
- Frequency Extenders
- Communication Systems
- Radar Systems

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Input Frequency	25.0 GHz		37.5 GHz
Output Frequency	50.0 GHz		75.0 GHz
Input Power		+20 dBm	+22 dBm
Output Power		+5 dBm	
Harmonic Suppression		20 dB	
Specification Temperature		+25˚C	
Operating Temperature	-40˚C		+85˚C

Mechanical Specifications:

Item	Specification
Input Port	WR-28 Waveguide with UG-599/U Anti-Cocking Flange
Output Port	WR-15 Waveguide with UG-385/U Anti-Cocking Flange
Material	Aluminum
Finish	Gold Plated
Weight	0.9 Oz
Outline	FP-VA2-A

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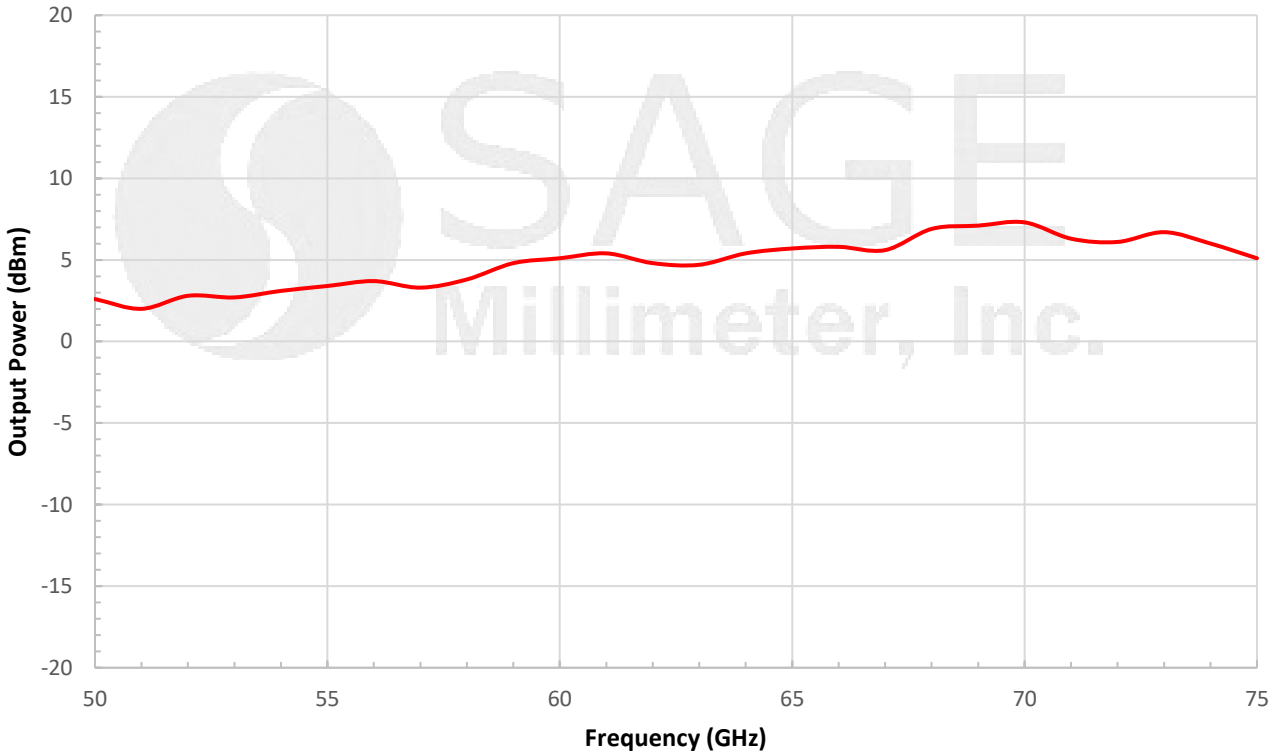
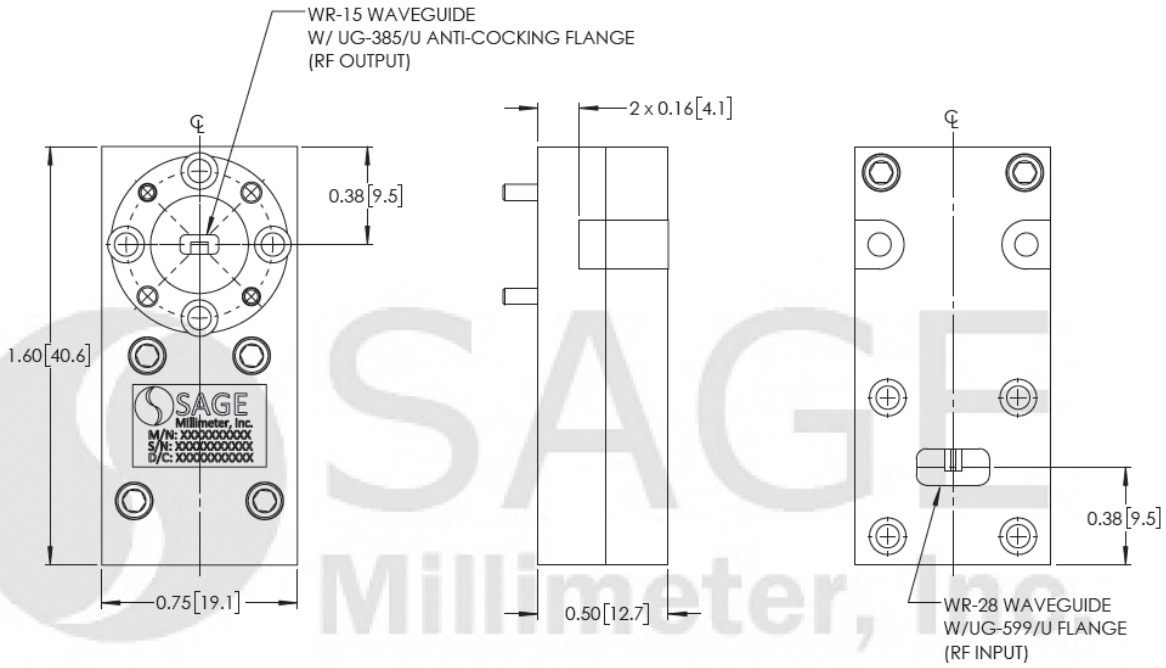
Typical Output Power vs. Output Frequency

Input Power: +20 dBm (Typ)



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.
- 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 degrade performance and/or damage the device.
- The multiplier is a static sensitive device. Always follow ESD rules when working with the multiplier.

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