SFP-152KF-S1-M

Rev. 1.0

V-Band X2, Passive Frequency Multiplier

Description:

Model SFP-152KF-S1-M is a V-Band, X2 passive multiplier that utilizes GaAs pHEMT-based MMIC chip with a balanced circuit configuration to generate third order harmonics with good harmonic and fundamental suppression. This multiplier requires an input frequency range of 20.0 to 40 GHz at +15 dBm RF power to yield 40 to 80 GHz at +3 dBm. The multiplier is equipped with a female K connector as its input port and a WR-15 waveguide with a UG-385/U anti-cocking flange as its output port. Other interface configurations are offered under different model numbers.

Features:

- Minimal Conversion Loss
- No External Bias
- Compact Design

Applications:

- Source Modules
- Communication Systems
- Radar Systems

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Input Frequency	20.0 GHz		40.0 GHz
Output Frequency	40 GHz		80 GHz
Input Power		+15 dBm	+20 dBm
Output Power		+3 dBm	
Harmonic Suppression		30 dB	
Specification Temperature		+25˚C	
Operating Temperature	-40˚C		+85˚C

Mechanical Specifications:

Item	Specification
Input Port	K(F)
Output Port	WR-15 Waveguide with UG-385/U Anti-Cocking Flange
Case Material	Aluminum
Finish	Gold Plated
Weight	0.8 Oz
Size	0.75” (L) X 0.97” (W) X 0.64” (H)
Outline	FP-VK32M-A

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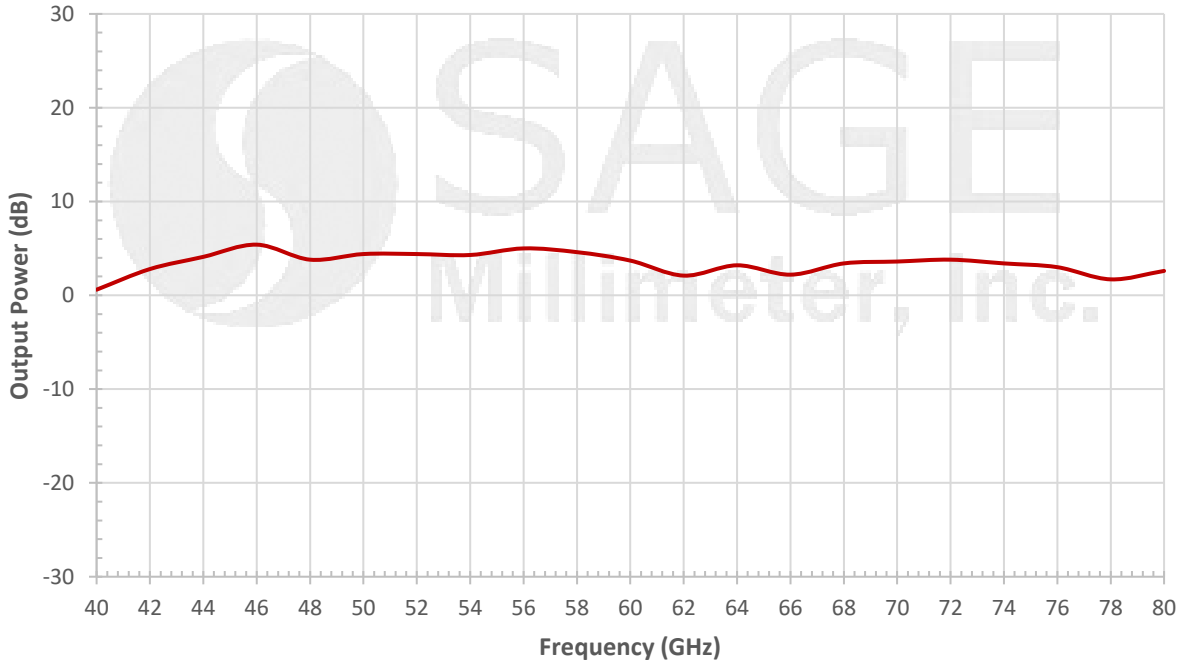
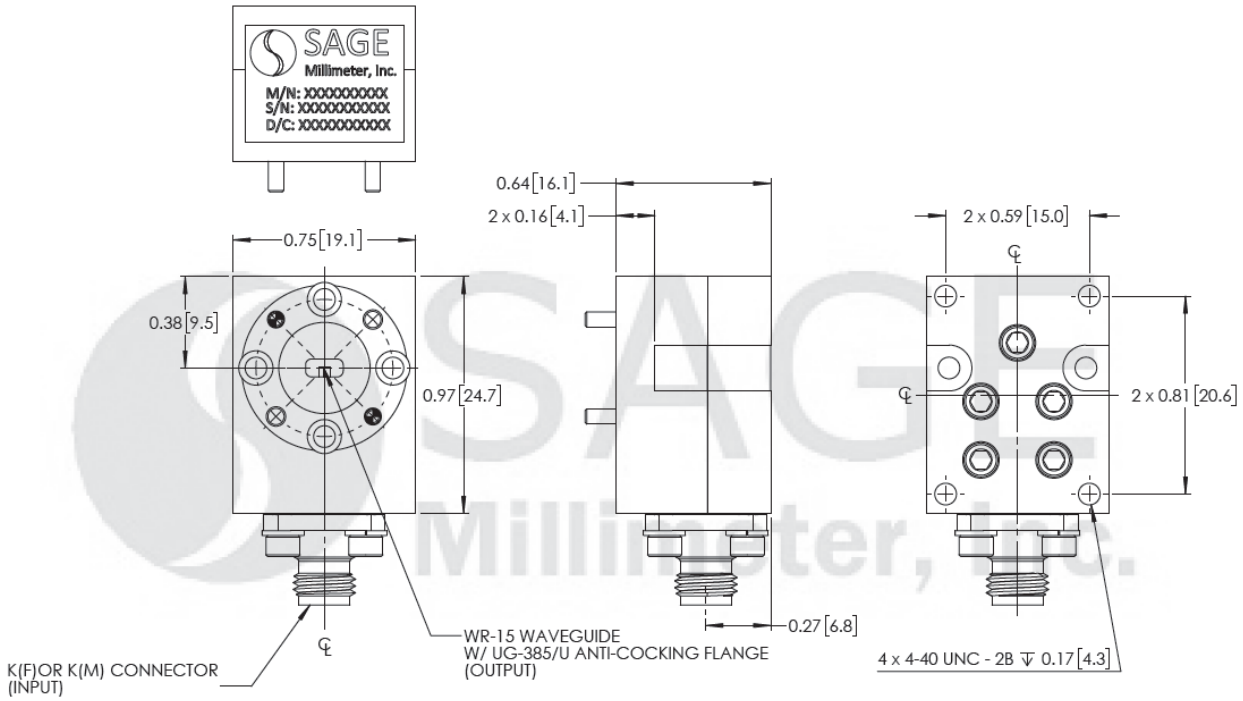
Output Power vs. Frequency

P_{in}= +15 dBm, Frequency: 20 to 40 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.
- 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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