



## V-Band X2, Passive Frequency Multiplier, +17 dBm Input Power

### Description:

**Model SFP-152KF-S2** 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 +17 dBm RF power to yield 50 to 75 GHz at +4 dBm. The multiplier is equipped with a female K connector 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:

- Minimal Conversion Loss
- No External Bias
- Compact Package

### Applications:

- Source Modules
- 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		+17 dBm	
Input Damage Power			+19 dBm
Output Power		+4 dBm	
Harmonic Suppression		20 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 Flange
Material	Aluminum
Finish	Gold Plated
Weight	0.4 Oz
Size	1.18" (L) x 0.75" (Ø)
Outline	FP-V22

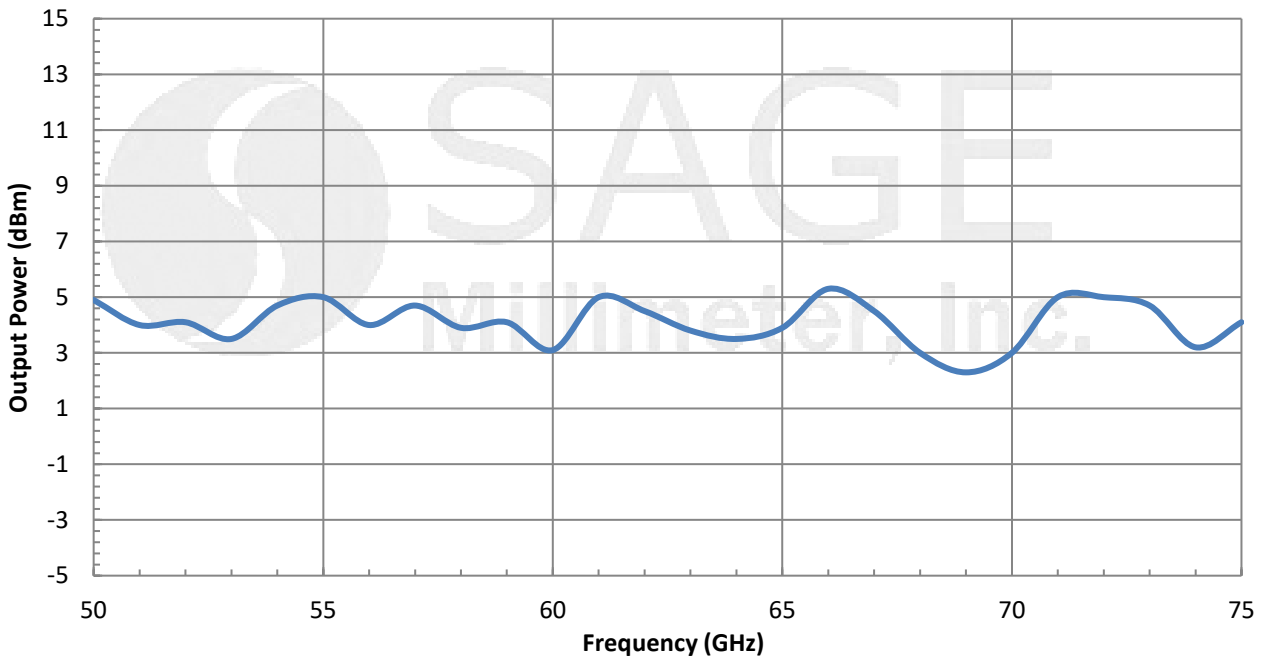




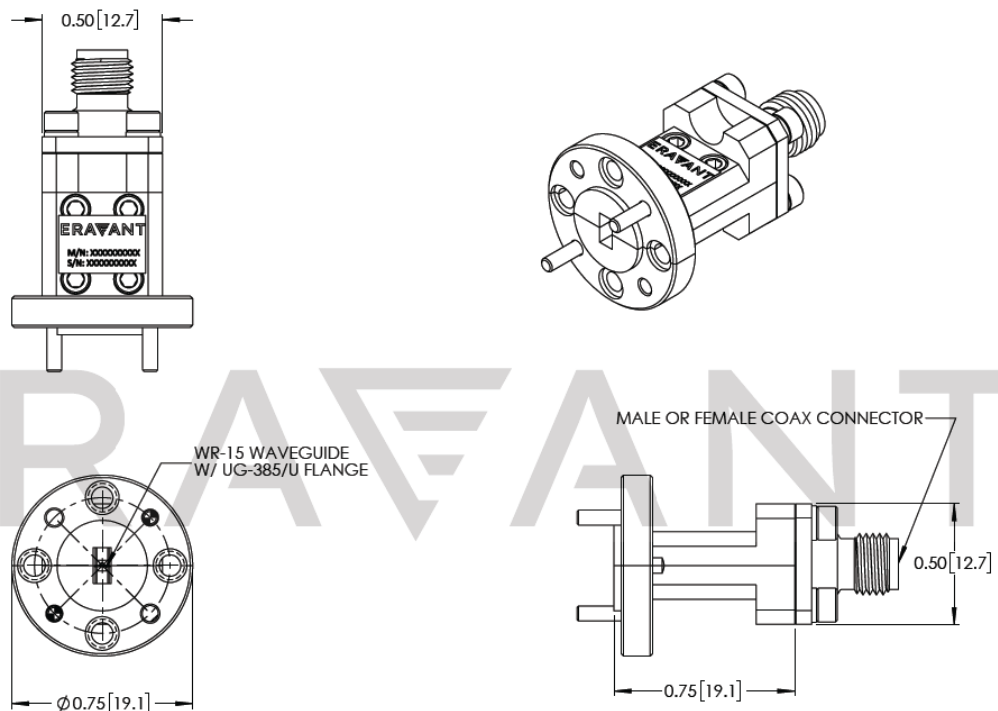
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### Typical Output Power vs. Frequency

Input Power: +17 dBm



**Mechanical Outline:** (Unless otherwise specified, all dimensions are in inches)





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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.

