



## U-Band X2, Passive Frequency Multiplier, +20 dBm Input Power

### Description:

**Model SFP-192KF-S1** is a U-Band, X2 passive multiplier that utilizes GaAs Schottky, beam-lead diodes and a balanced circuit configuration to generate the second harmonic with good harmonic and fundamental frequency rejections. This multiplier requires an input frequency range of 20 to 30 GHz at +20 dBm RF power to yield 40 to 60 GHz at +6 dBm typically. The multiplier is equipped with a female K connector as its input port and a WR-19 waveguide with a UG-383/U-M flange as its output port. Other interface configurations are offered under different model numbers.



### Features:

- Low Conversion Loss
- No External Bias
- Compact Package

### Applications:

- Source Modules
- Communication Systems
- Radar Systems

### Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Input Frequency	20 GHz		30 GHz
Output Frequency	40 GHz		60 GHz
Input Power		+20 dBm	
Damage Input Power			+23 dBm
Output Power		+6 dBm	
Fundamental Rejection		40 dB	
Harmonic Suppression		20 dB	
Specification Temperature		+25 °C	
Operating Temperature	0 °C		+50 °C

### Mechanical Specifications:

Item	Specification
Input Port	K(F)
Output Port	WR-19 Waveguide with UG-383/U-M Flange
Material	Aluminum
Finish	Gold Plated
Weight	0.4 Oz
Size	1.13" (L) x 1.13" (Ø)
Outline	FP-UK2

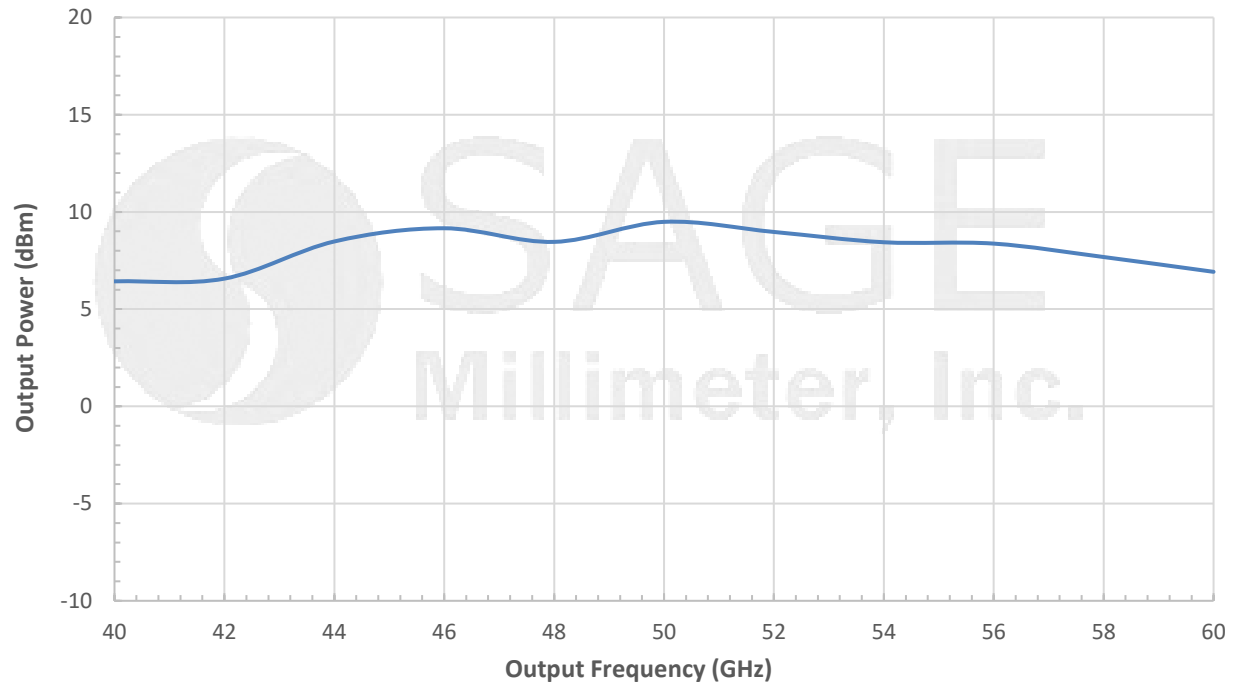




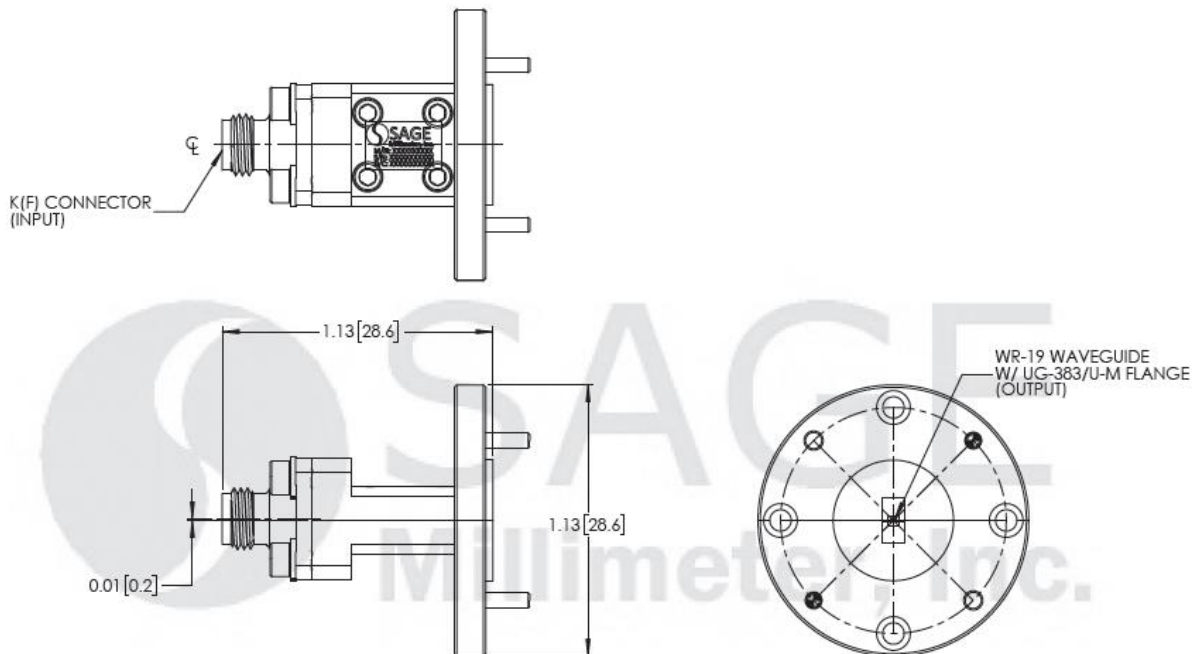
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### Typical Output Power vs. Output Frequency

Input Power: +20 dBm Typical



**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 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.

