

X3 Active Frequency Multiplier, 72 to 90 GHz

Description:

Model SFA-123KF-S1 is an active X3 frequency multiplier. The multiplier has an input frequency of 24 to 30 GHz with a minimum input power of +0 dBm and an output frequency of 72 to 90 GHz with a minimum output power of +8 dBm. The multiplier also has a typical harmonic suppression of -20 dBc. The DC power requirement for the multiplier is +8 V_{DC}/240 mA. The input port configuration is a female K connector and the output is a WR-12 waveguide with a UG-387/U flange. Other port configurations are available under different model numbers.



Features:

- Broadband Coverage
- Low Harmonic Components

Applications:

- Frequency Extenders
- Source Modules
- Communication Systems

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Input Frequency	24 GHz		30 GHz
Input Power	+0 dBm		+5 dBm
Output Frequency	72 GHz		90 GHz
Output Power	+8 dBm		
Harmonic Suppression		-20 dBc	
Spurious		-60 dBc	
DC Voltage		+8 V _{DC}	
DC Supply Current		240 mA	
Specification Temperature		+25°C	
Case Temperature	0°C		+50°C

Mechanical Specifications:

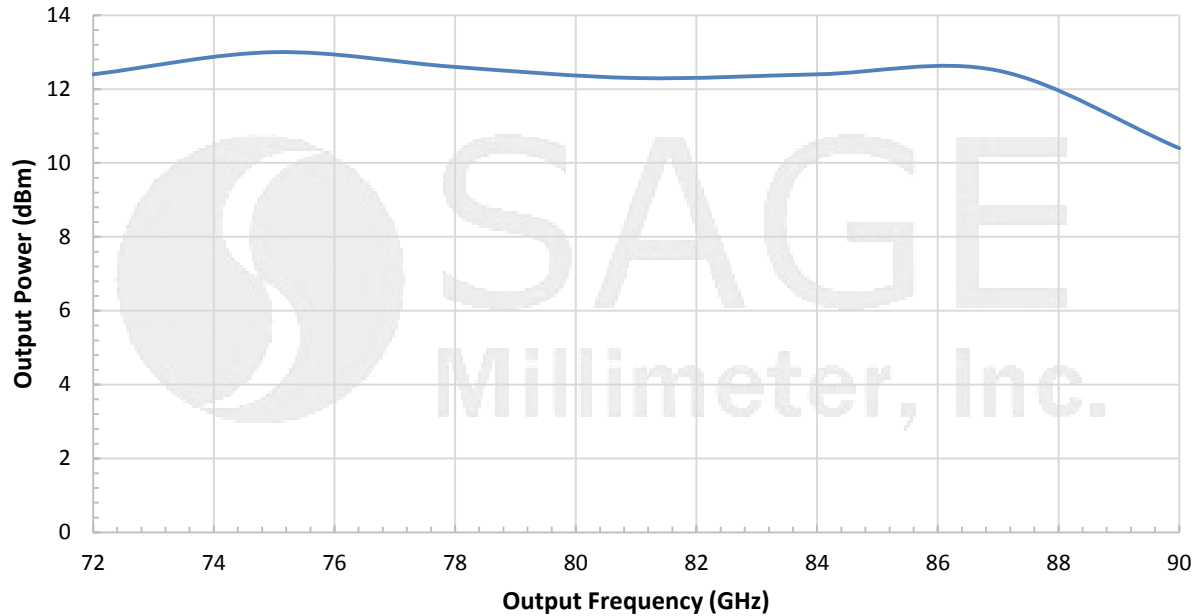
Item	Specification
Input	K(F)
Output	WR-12 Waveguide with UG-387/U Flange
Bias	Solder Pin
Size	1.10" (W) x 1.80" (L) x 0.50" (H)
Case Material	Aluminum
Finish	Gold Plated
Weight	1.4 Oz
Outline	FA-SE-1-1.8

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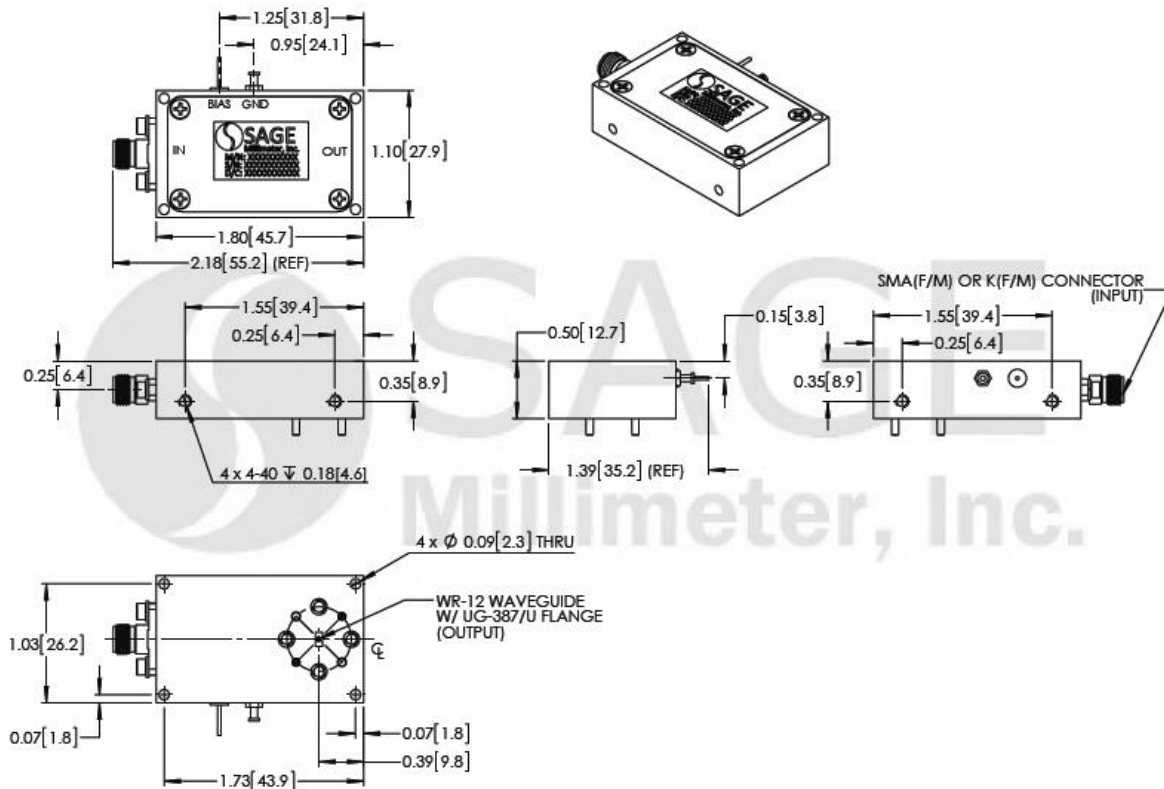
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Typical Output Power vs. Output Frequency

Bias: +8 V_{DC}/240 mA



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





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Note:

- All data are presented using a limited 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.
- Other mechanical configurations are available under different model number.

Caution:

- Exceeding absolute maximum ratings shown will damage the device.
- The device is static sensitive. Always follow ESD rules when working with the device.
- Any foreign objects in the waveguide will cause performance degradation and possible device damage.
- The case temperature of the device shall never exceed +50°C. Use proper Heatsink or fan if necessary.