SFP-243423303-28SF-S1

Rev. 1.1

Ka-Band X3, Passive Frequency Multiplier, 24 to 42 GHz

Description:

Model SFP-243423303-28SF-S1 is a Ka-Band, X3 passive multiplier that utilizes GaAs Schottky, beam-lead diodes and a balanced circuit configuration to generate third order harmonics while suppressing unwanted harmonic products. This multiplier has an input frequency of 8 to 14 GHz at +20 dBm RF power to yield 24 to 42 GHz at +3 dBm power at the output. The multiplier is equipped with an SMA-female coaxial connector as its input port and a WR-28 waveguide as its output port. Other interface configurations are offered in different model numbers.

Features:

- Wideband Coverage
- 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	8 GHz		14 GHz
Output Frequency	24 GHz		42 GHz
Input Power		+20 dBm	+23 dBm
Output Power		+3 dBm	
Harmonic Suppression		-20 dB	
Specification Temperature		+25 °C	
Operating Temperature	-40 °C		+85 °C

Mechanical Specifications:

Item	Specification
Input Port	SMA (F)
Output Port	WR-28 Waveguide with UG-599/U Flange
Case Material	Aluminum
Finish	Gold Plated
Weight	0.5 Oz
Size	1.33” (L) X 0.75” (W) X 0.51” (H)
Outline	FP-AS3

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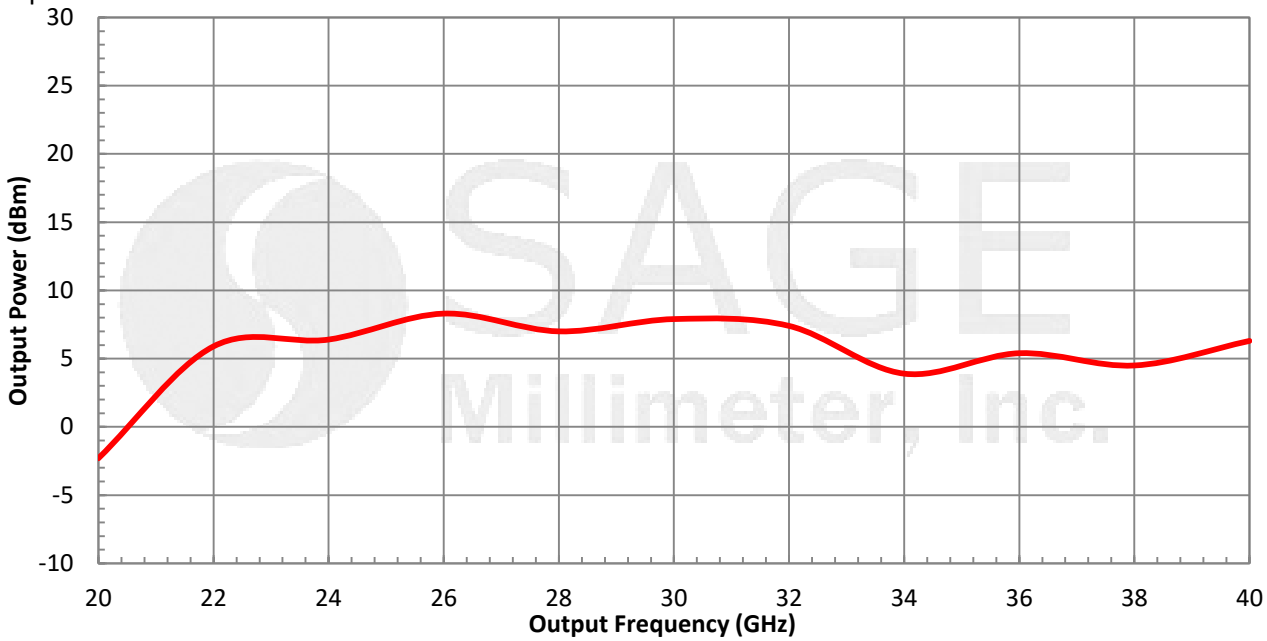
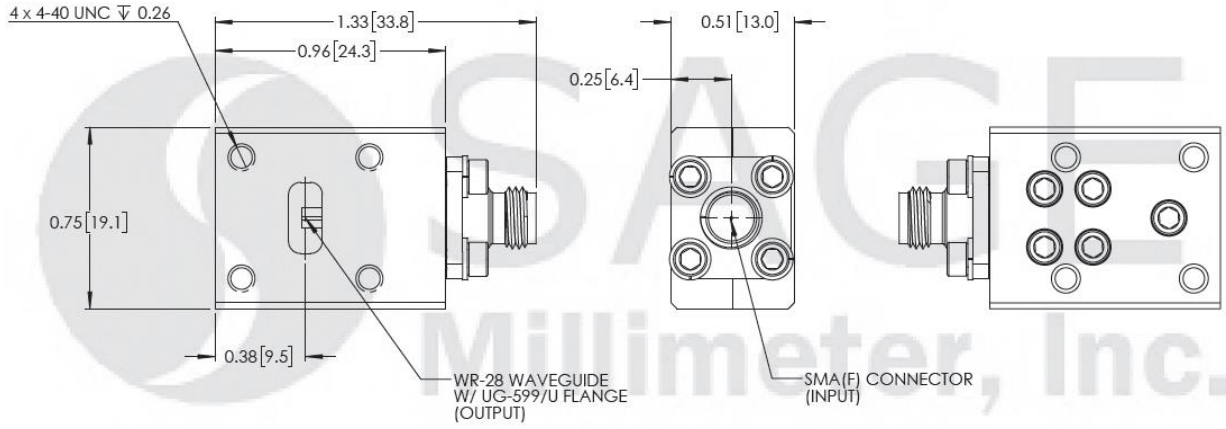
Typical Output Power vs. Output Frequency

Input Power: +18 dBm



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



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 cause performance degradation and possible device damage.
- The multiplier is a static sensitive device. Always follow ESD rules when working with the multiplier.

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