

G-Band X2, Passive Frequency Multiplier, 140 to 220 GHz

Description:

Model SFP-05210-S2-WP is a G-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 70 to 110 GHz at +16 dBm RF power to yield typical 140 to 220 GHz at -6 dBm output power. The multiplier is equipped with a WR-10 waveguide and UG-387/U-M anti-cocking flange as its input port and a WR-05 waveguide and UG-387/U-M anti-cocking flange as its output port.



Features:

- No External Bias
- Compact Package

Applications:

- THz
- Source Modules
- Frequency Extenders
- Radar and Communication Systems

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Input Frequency	70 GHz		110 GHz
Output Frequency	140 GHz		220 GHz
Input Power		+16 dBm	
Damage Input Power			+18 dBm
Output Power		-6 dBm	
Harmonic Suppression		20 dB	
Specification Temperature		+25 °C	
Operating Temperature	-20 °C		+70 °C

Mechanical Specifications:

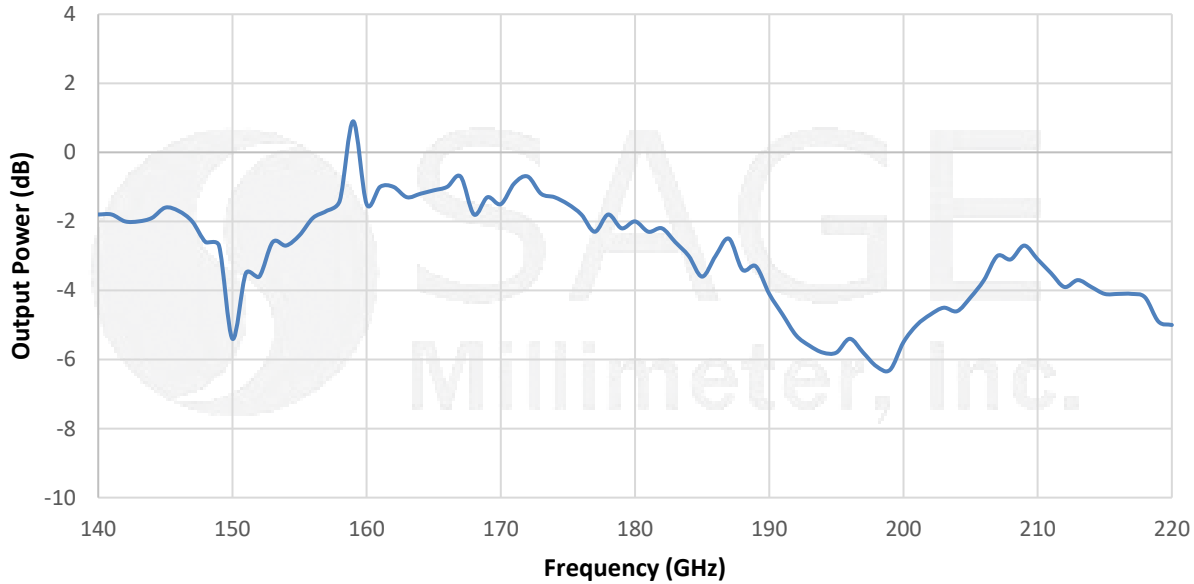
Item	Specification
RF Input Port	WR-10 Waveguide with UG-387/U-M Anti-Cocking Flange
RF Output Port	WR-05 Waveguide with UG-387/U-M Anti-Cocking Flange
Material	Aluminum
Finish	Gold Plated
Weight	0.4 Oz
Size	0.75" (W) x 0.75" (H) x 1.2" (L)
Outline	FP-GW2-A



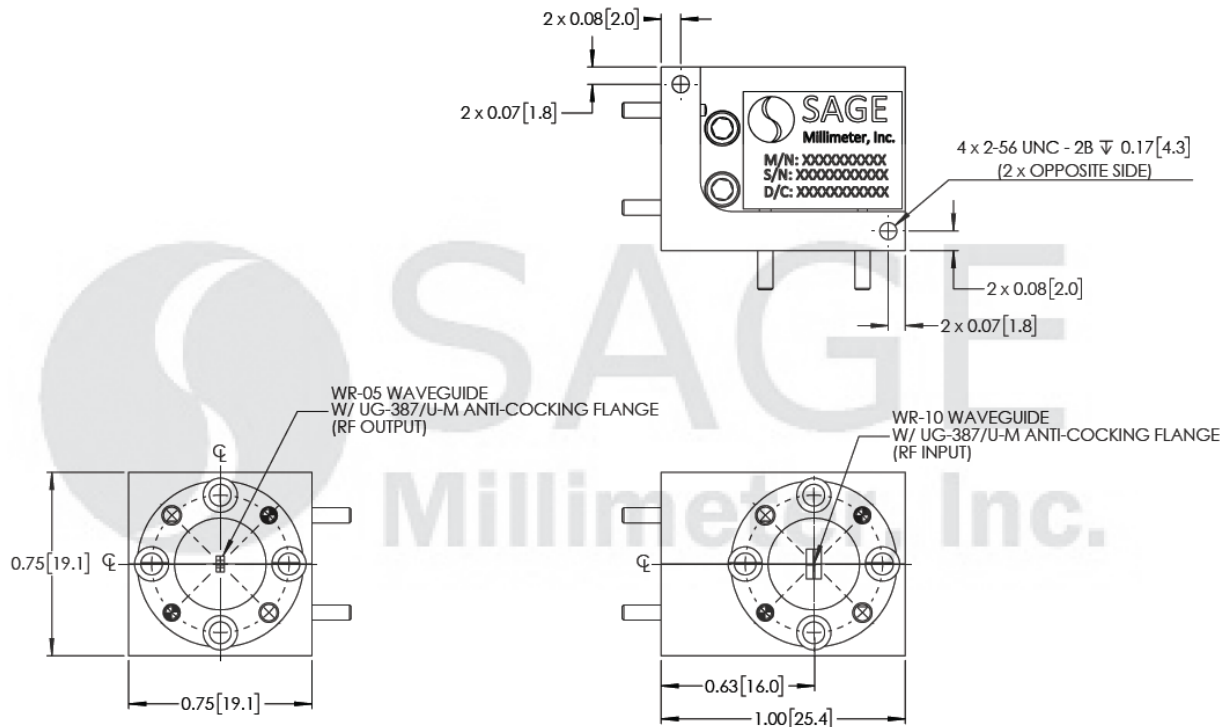
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Output Power vs. Frequency

$P_{in} = +16$ dBm



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.
- Eravant 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.

