SFP-05210-S2-WPC

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

SFP-05210-S2-WPC is a G-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 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 -3 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.

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Input Frequency	70 GHz		110 GHz
Output Frequency	140 GHz		220 GHz
Input Power	+14 dBm	+16 dBm	
Damage Input Power			+18 dBm
Output Power		-3 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” (L) X 0.75” (W) X 1.00” (H)
Outline	FP-GW2-A

ECCN

3A001.b.7

FEATURES

- Low Conversion Loss
- No External Bias
- Compact Package

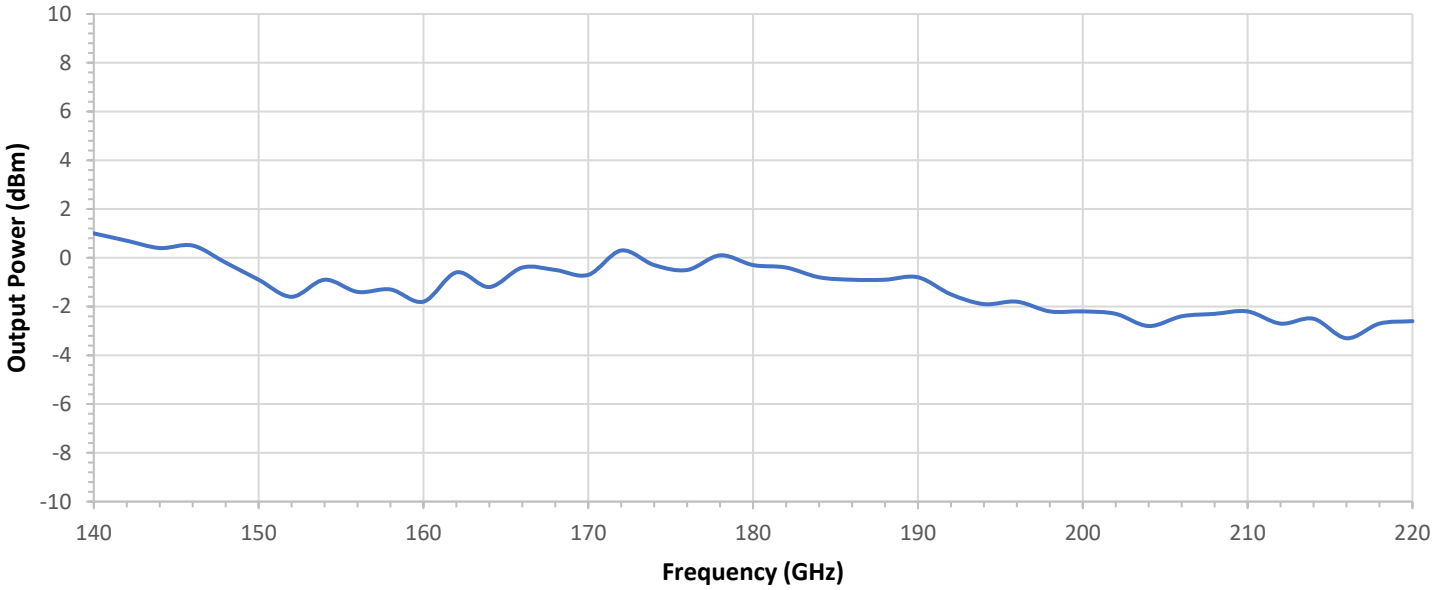
APPLICATIONS

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

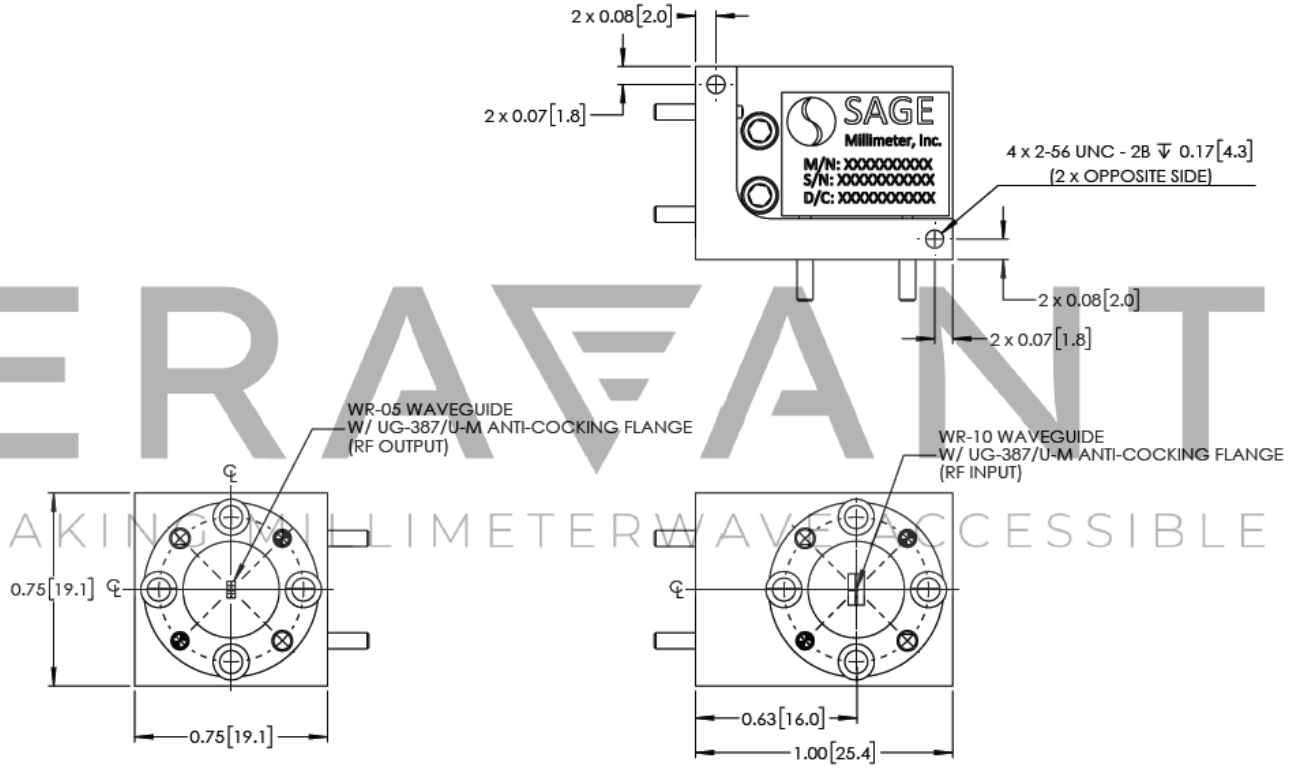
SUPPLEMENTAL DETAILS

Typical Output Power vs. Frequency

Input Power = +16 dBm



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



NOTE:

- Test data provided it is collected from a sample lot. Actual data may vary slightly from unit to unit. All testing is performed under +25 °C room temperature.
- Eravant reserves the right to change the information presented without notice.

CAUTION:

- Exceeding absolute maximum ratings of the multiplier will damage the device.
- The multiplier is a static sensitive device. Always follow ESD rules when working with the multiplier.
- Any foreign objects in the waveguide will cause performance degradation and may damage or destroy the unit.
- For 1 mm connectors proper torque should be applied: 4.0 ± 0.15 inch-pounds (0.45 ± 0.02 Nm). Torque wrench model SCH-06004-S1 is highly recommended.
- For 1.35 mm, 1.85 mm, 2.4 mm, 2.92 mm, and SMA connectors proper torque should be applied: 8.0 ± 0.15 inch-pounds (0.90 ± 0.02 Nm). Torque wrench model SCH-08008-S1 is highly recommended

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