

SFP-05210-SB

WR-05 X2, Passive Frequency Multiplier, 140 to 220 GHz

SFP-05210-SB is a WR-05 X2 passive multiplier that generates second order harmonics with good harmonic and fundamental suppression. This multiplier requires an input frequency range of 70 to 110 GHz at +17 dBm RF power to yield typical +5 dBm output power at 140 to 220 GHz. 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		+17 dBm	+19 dBm
Damage Input Power			+20 dBm
Output Power		+5 dBm	
Conversion Efficiency		6%	
Harmonic Suppression		20 dBc	
Specification Temperature		+25°C	
Operating Temperature	0°C		+50°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
Bias Port	SMA (F)
Material	Aluminum
Finish	Gold Plated
Size	0.75" (L) X 0.75" (W) X 0.75" (H)
Outline	FP-GW2-A-3

ECCN

3A001.b.7

FEATURES

- High Conversion Efficiency
- Compact Package

APPLICATIONS

- THz
- Source Modules
- Frequency Extenders

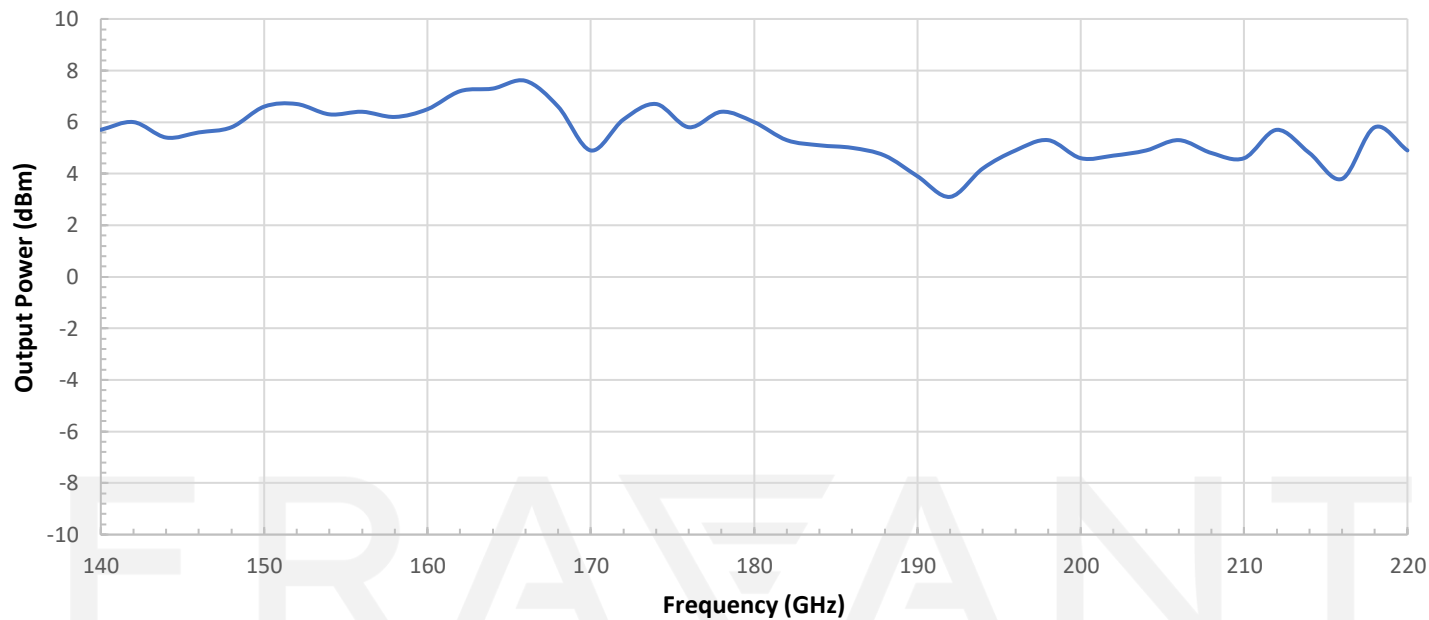
SUPPLEMENTAL DETAILS



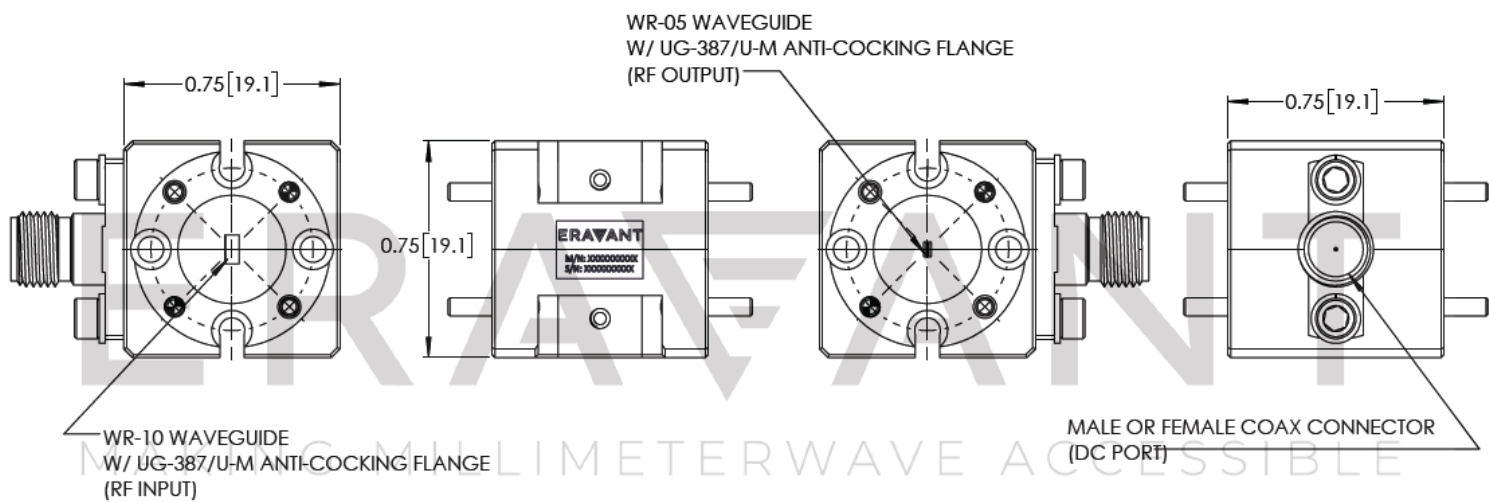
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Output Power vs. Frequency

Input Power = +17 dBm



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



NOTE:

- Test data provided 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.
- Any foreign objects in the waveguide will cause performance degradation and may damage or destroy the unit.
- The multiplier is a static sensitive device. Always follow ESD rules when working with the multiplier.
- Eravant recommends the use of ESD wrist and ankle straps, grounded ESD dissipative surfaces, and air ionizers when handling the device.
- 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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