SFA-194224208-0510-E1

Rev 1.0

G-Band, X2 Active Multiplier, 190 to 220 GHz, +8 dBm P_{out}

Description:

Model SFA-194224208-0510-E1 is an active X2 frequency multiplier. The multiplier has an input frequency of 95 to 110 GHz with a typical input power of +12 dBm and an output frequency of 190 to 220 GHz with a typical output power of +8 dBm. The DC power requirement for the multiplier is +8 V_{DC}/170 mA. The input port configuration is a WR-10 waveguide with a UG-387/U-M anti-cocking flange and the output is a WR-05 waveguide with a UG-387/U-M anti-cocking flange. Other port configurations are available under different model numbers.

Features:

- High Output Power

Applications:

- Frequency Extenders
- THz Systems

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Input Frequency	95 GHz		110 GHz
Input Power		+12 dBm	+14 dBm
Output Frequency	190 GHz		220 GHz
Output Power		+8 dBm	
Harmonic Suppression		-15 dBc	
Spurious		-60 dBc	
Port Return Loss		10 dB	
DC Voltage	+6 V_{DC}	+8 V_{DC}	+15 V_{DC}
DC Supply Current		170 mA	
Specification Temperature		+25 ˚C	
Operating Temperature	0 ˚C		+50 ˚C

Mechanical Specifications:

Item	Specification
Input Port	WR-10 Waveguide with UG-387/U-M Anti-Cocking Flange
Output Port	WR-05 Waveguide with UG-387/U-M Anti-Cocking Flange
Bias	Solder Pin
Case Material	Aluminum
Finish	Gold Plated
Weight	1.2 Oz
Size	1.40” (L) X 1.00” (W) X 0.75” (H)
Outline	FA-SWG-A

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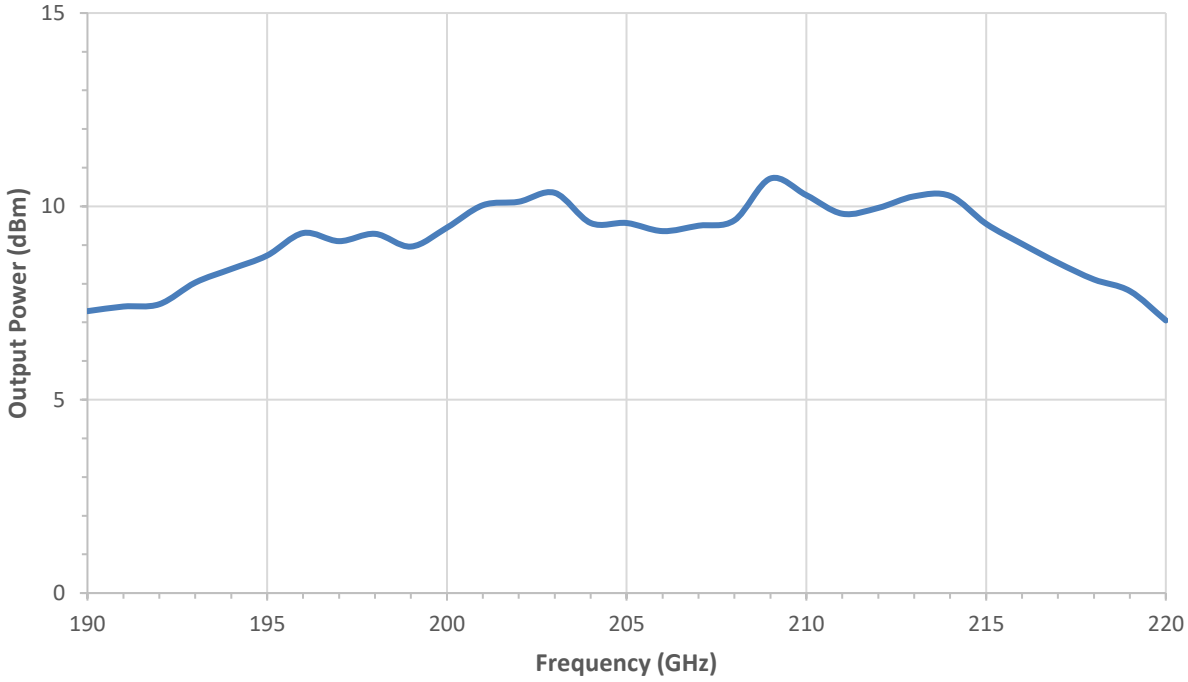
Output Power vs. Frequency

Bias: +8V_{DC}/153 mA; Input Power = +12 dBm
RFsat: +8Vdc/170 mA



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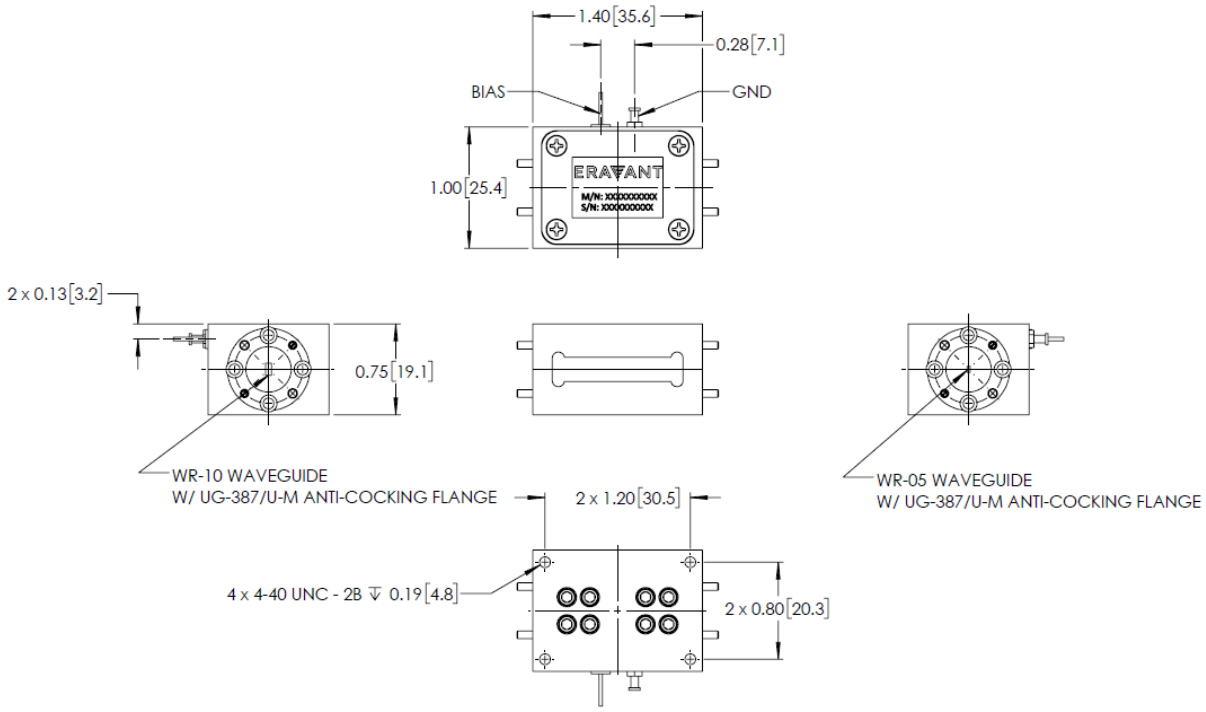
Mechanical Outline: (Unless otherwise specified, all dimensions are in inches [millimeters])



Note:

- All data presented is collected from a sample lot. Actual data may vary unit to unit, slightly.
- All testing was performed under +25 ˚C case temperature.
- Eravant reserves the right to change the information presented without notice.
- Other mechanical configurations are available under different model numbers.

Caution:

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