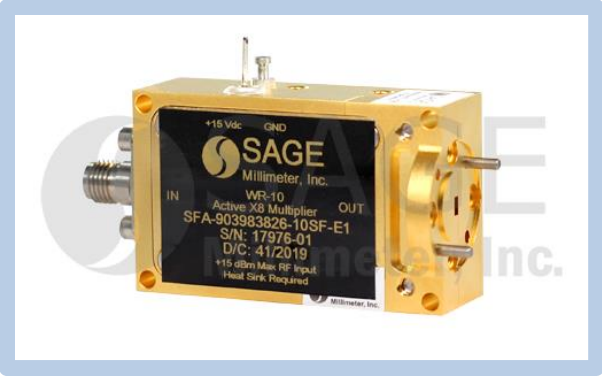
SFA-883104826-10SF-E1

Rev 1.1

W-Band, X8 Active Frequency Multiplier, 88 to 100 GHz, +26 dBm P_{out}

Description:



Model SFA-883104826-10SF-E1 is an active X8 frequency multiplier. The multiplier has an input frequency of 11 to 12.5 GHz with a typical input power of +5 dBm and an output frequency of 88 to 100 GHz with a typical output power of +26 dBm. The multiplier also has a typical harmonic suppression of -15 dBc. The DC power requirement for the multiplier is +8 V_{DC}/1800 mA. The input port configuration is a female SMA connector and the output is a WR-10 waveguide with a UG-387/U-M anti-cocking flange. Other port configurations are available under different model numbers.

Features:

- Low Harmonic Components
- High Output Power

Applications:

- Frequency Extenders
- Communication Systems
- Radar Systems

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Input Frequency	11 GHz		12.5 GHz
Input Power		+5 dBm	+15 dBm
Output Frequency	88 GHz		100 GHz
Output Power		+26 dBm	
Harmonic Suppression		-15 dBc	
Port Return Loss		10 dB	
DC Voltage		+8 V_{DC}	
DC Supply Current		1800 mA	
Specification Temperature		+25 ˚C	
Operating Temperature	0 ˚C		+50 ˚C

Mechanical Specifications:

Item	Specification
Input Port	SMA (F)
Output Port	WR-10 Waveguide with UG-387/U-M Anti-Cocking Flange
Bias Port	Solder Pin
Case Material	Aluminum
Finish	Gold Plated
Weight	1.6 Oz
Size	1.10” (W) X 1.80” (L) X 0.75” (H)
Outline	FA-SW-2CW-A-1.8

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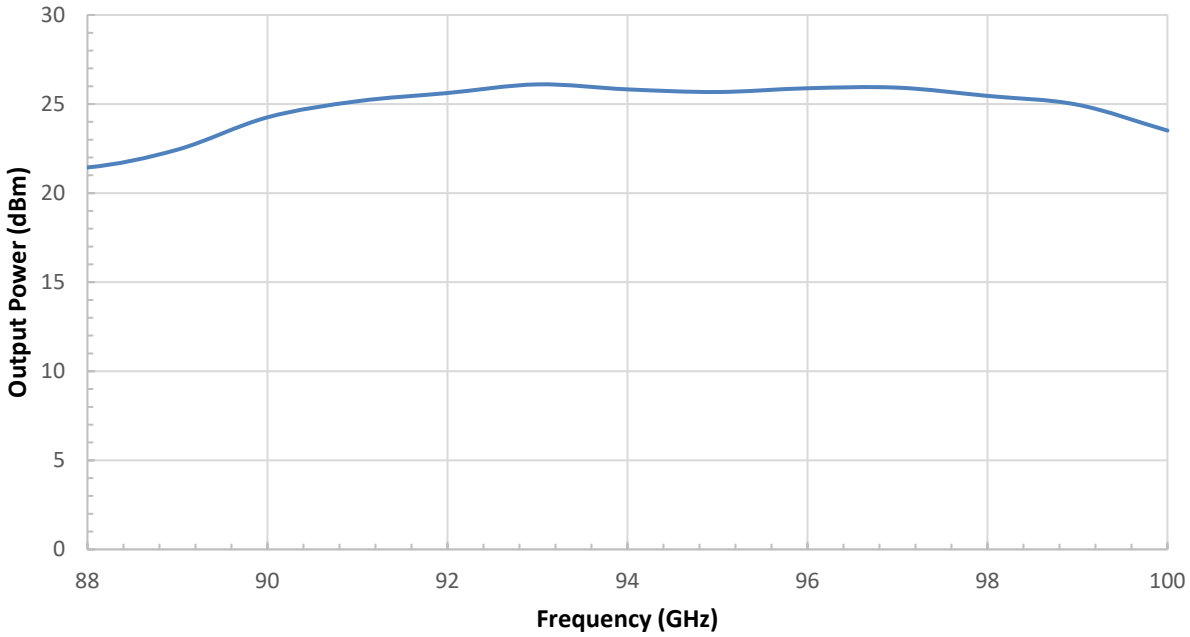
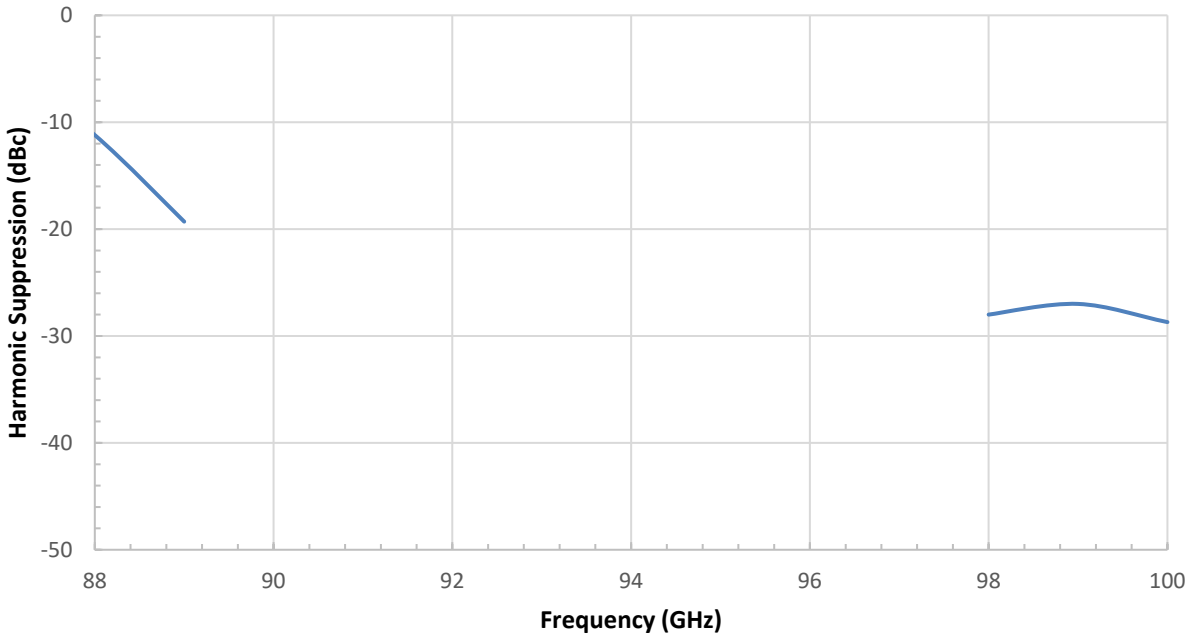
Output Power vs. Frequency

Bias: +8 V_{DC}/2 A



Harmonic Suppression vs. Frequency

Bias: +8 V_{DC}/2 A



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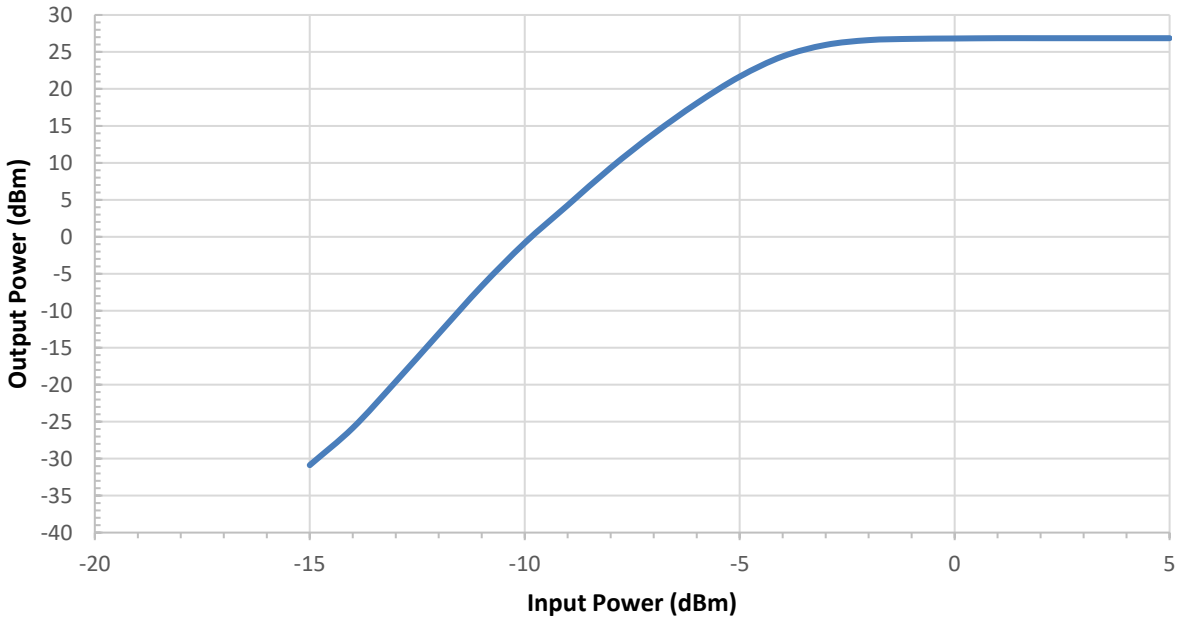
Pin-Pout

94 GHz Out



*Adjusting the input power away from the typical input may result in harmonic suppression degradation

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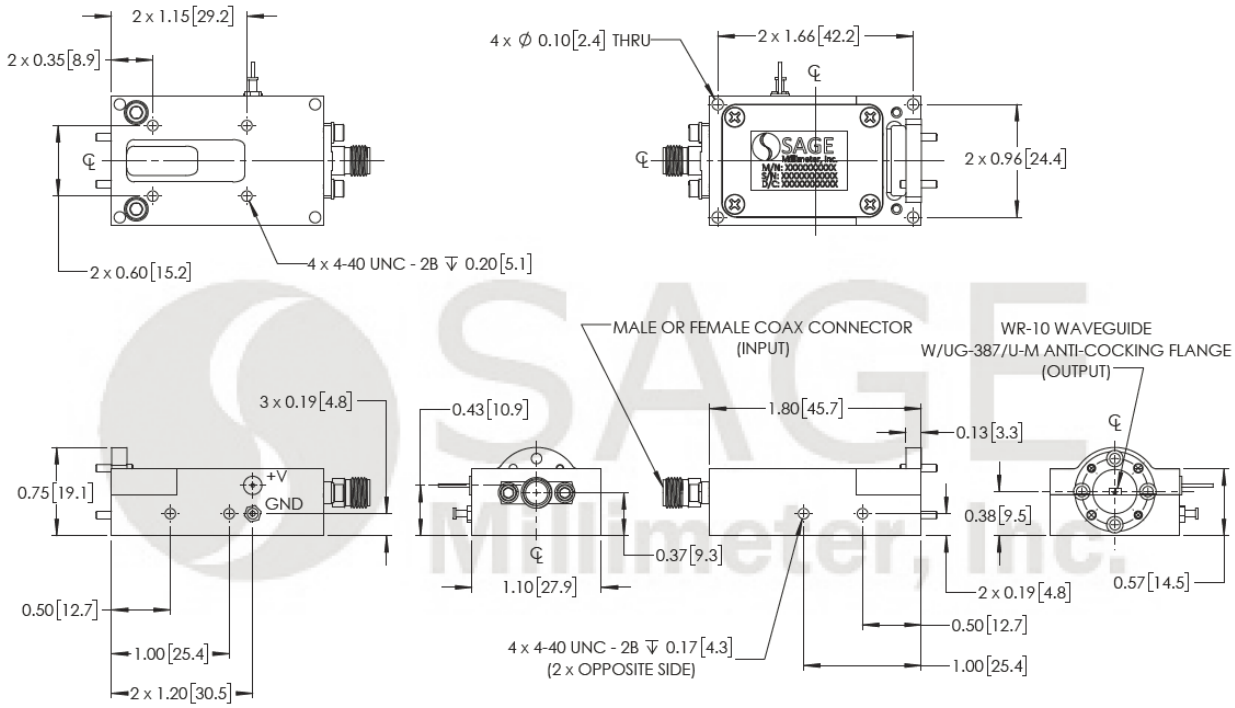
Mechanical Outline: (Unless otherwise specified, all dimensions are in inches [millimeters])



Note:

- All data presented is collected from a sample lot. Actual data may vary unit to unit, slightly.
- All testing was performed under +35 ˚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.
- Any foreign objects in the waveguide will cause performance degradation and possible device damage.
- The case temperature of the device shall never exceed +50 ˚C. Use proper Heatsink or fan if necessary.