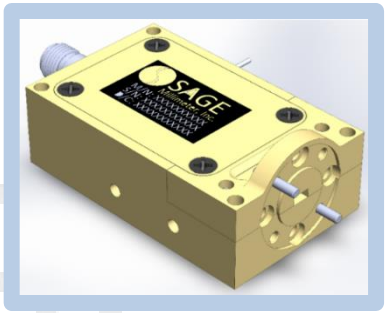
SFA-803863628-12SF-E1

Advanced

E-Band, X6 Active Frequency Multiplier, 80 to 86 GHz, +28 dBm

Description:



Model SFA-803863628-12SF-E1 is an active X6 frequency multiplier. The multiplier has an input frequency of 13.33 to 14.34 GHz with a typical input power of +5 dBm and an output frequency of 80 to 86 GHz with a nominal output power of +28 dBm. The multiplier also has a typical harmonic suppression of -20 dBc. The DC power requirement for the multiplier is +8 V_{DC}/1,300 mA. The input port configuration is a female SMA connector and the output is a WR-12 waveguide with a UG-387/U anti-cocking flange. Other port configurations are available under different model numbers.

Features:

- Broadband Coverage
- Low Harmonic Components

Applications:

- 5G Systems
- Frequency Extenders
- Source Modules
- Communication Systems

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Input Frequency	13.33 GHz		14.34 GHz
Input Power		+5 dBm	+20 dBm
Output Frequency	80.0 GHz		86.0 GHz
Output Power		+28 dBm	
Harmonic Suppression		-20 dBc	
Spurious		-60 dBc	
Return Loss		10 dB	
DC Voltage	+6 V_{DC}	+8 V_{DC}	+15 V_{DC}
DC Supply Current		1,300 mA	
Specification Temperature		+25 ˚C	
Operating Temperature	0 ˚C		+50 ˚C

The frequency range of this model can cover 74 to 87 GHz.

Mechanical Specifications:

Item	Specification
Input	SMA (F)
Output	WR-12 Waveguide with UG-387/U Anti-Cocking Flange
Bias	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-SE-2CW-A-1.8

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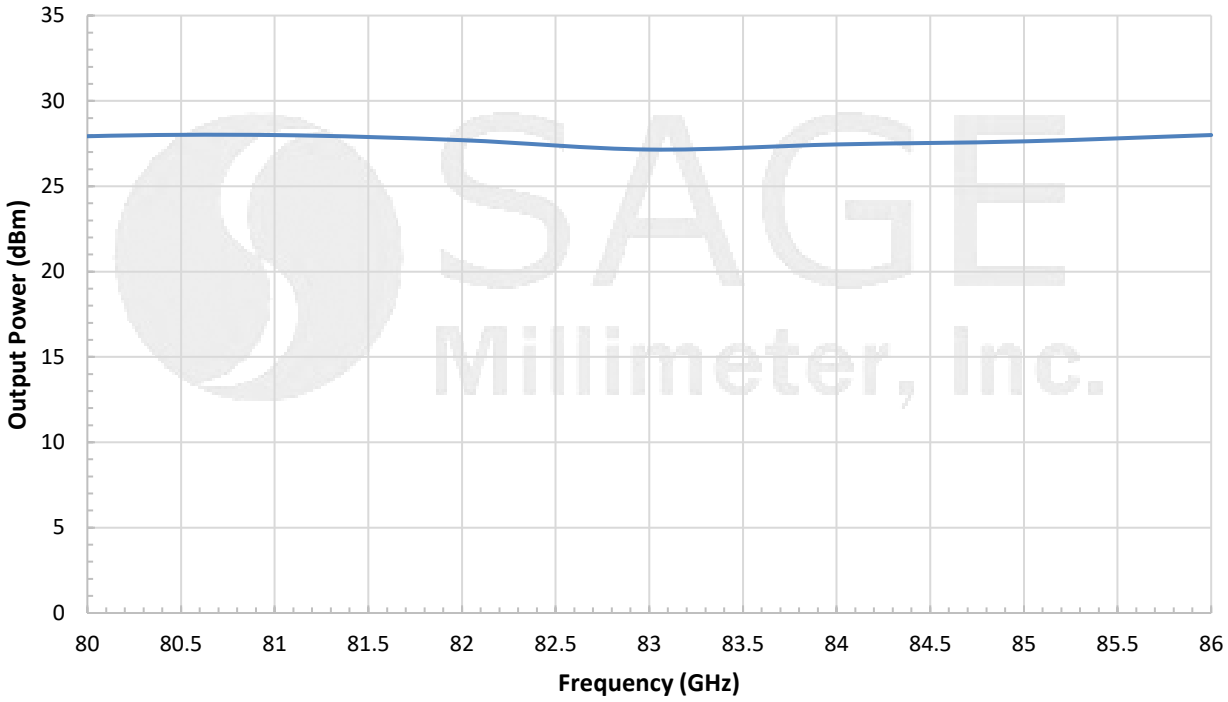
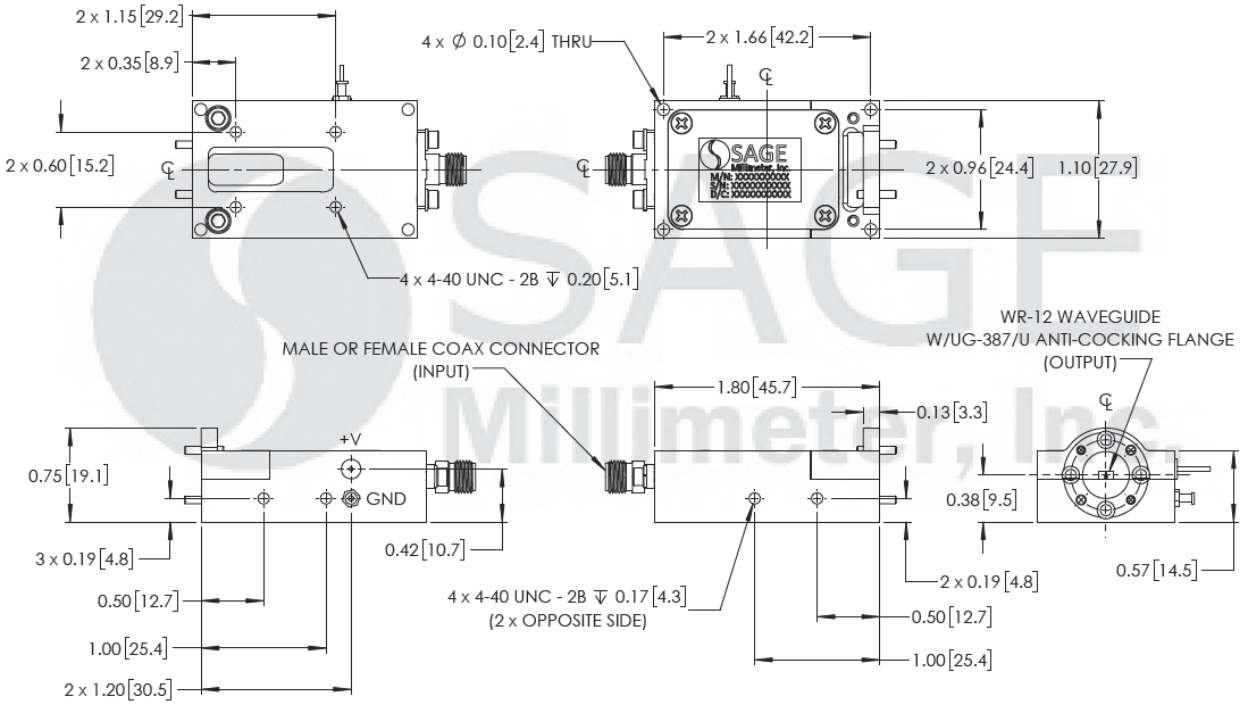
Typical Performance vs. Output Frequency

Bias: +8 V_{DC}/1,300 mA; Input Power: +5 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, slightly.
- All testing was performed under +25 ˚C case temperature.
- SAGE Millimeter, Inc. 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.
- Proper torque, 8.0 ± 0.15 inch-pounds (0.90 ± 0.02 Nm), should be applied. **SAGE Millimeter torque wrench, model SCH-08008-S1, is highly recommended.**