SFA-903114213-10VF-S1

W-Band, X2 Active Frequency Multiplier, 90 to 110 GHz, +13 dBm Pout

SFA-903114213-10VF-S1 is an active X2 frequency multiplier. The multiplier has an input frequency of 45 to 55 GHz with a typical input power of +3 dBm and an output frequency of 90 to 110 GHz with a typical output power of +13 dBm. The multiplier also has a typical harmonic suppression of -15 dBc. The DC power requirement for the multiplier is +8VDC/350 mA. The input port configuration is a 1.85mm female 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.

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Input Frequency	45 GHz		55 GHz
Input Power		+3 dBm	+20 dBm
Output Frequency	90 GHz		110 GHz
Output Power		+13 dBm	
Harmonic Suppression		-15 dBc	
Spurious		-60 dBc	
Port Return Loss		10 dB	
DC Voltage	+6 V_{DC}	+8 V_{DC}	+12 V_{DC}
DC Supply Current		350 mA	
Specification Temperature		+25°C	

Mechanical Specifications:

Item	Specification
Input Port	1.85 mm (F)
Output Port	WR-10 Waveguide with UG-387/U Anti-Cocking Flange
Bias	Solder Pin
Case Material	Aluminum
Finish	Gold Plated
Weight	1.3 Oz
Size	1.10” (W) X 1.80” (L) X 0.50” (H)
Outline	FA-SW-1-A-1.8

ECCN

3A001.b.7

FEATURES

- Low Harmonic Components
- High Output Power

APPLICATIONS

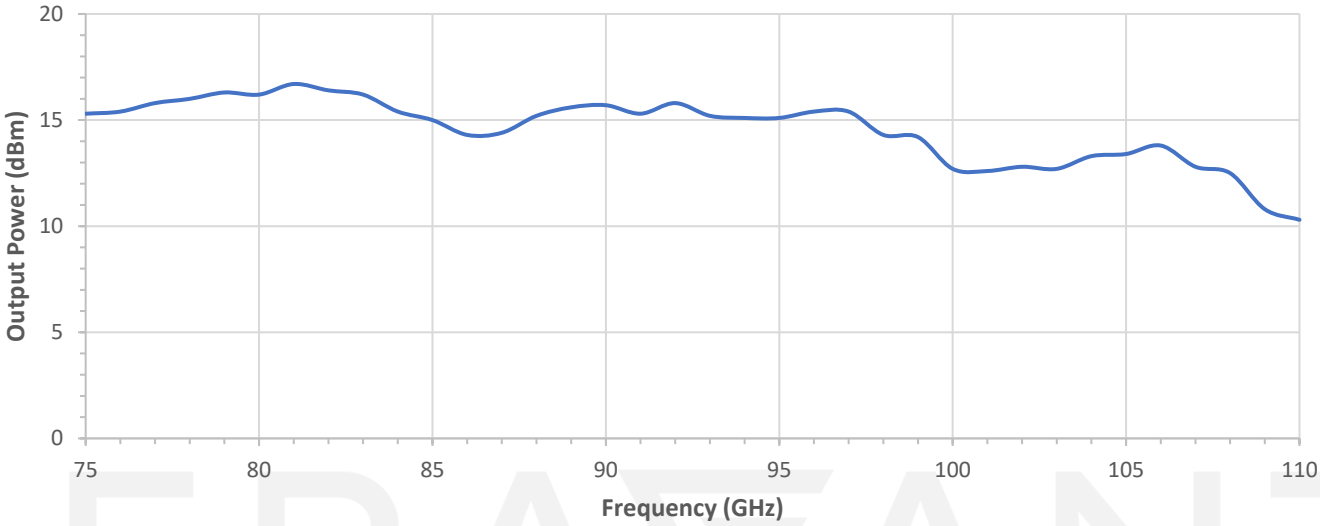
- Frequency Extenders
- Communication Systems
- Radar Systems

SUPPLEMENTAL DETAILS

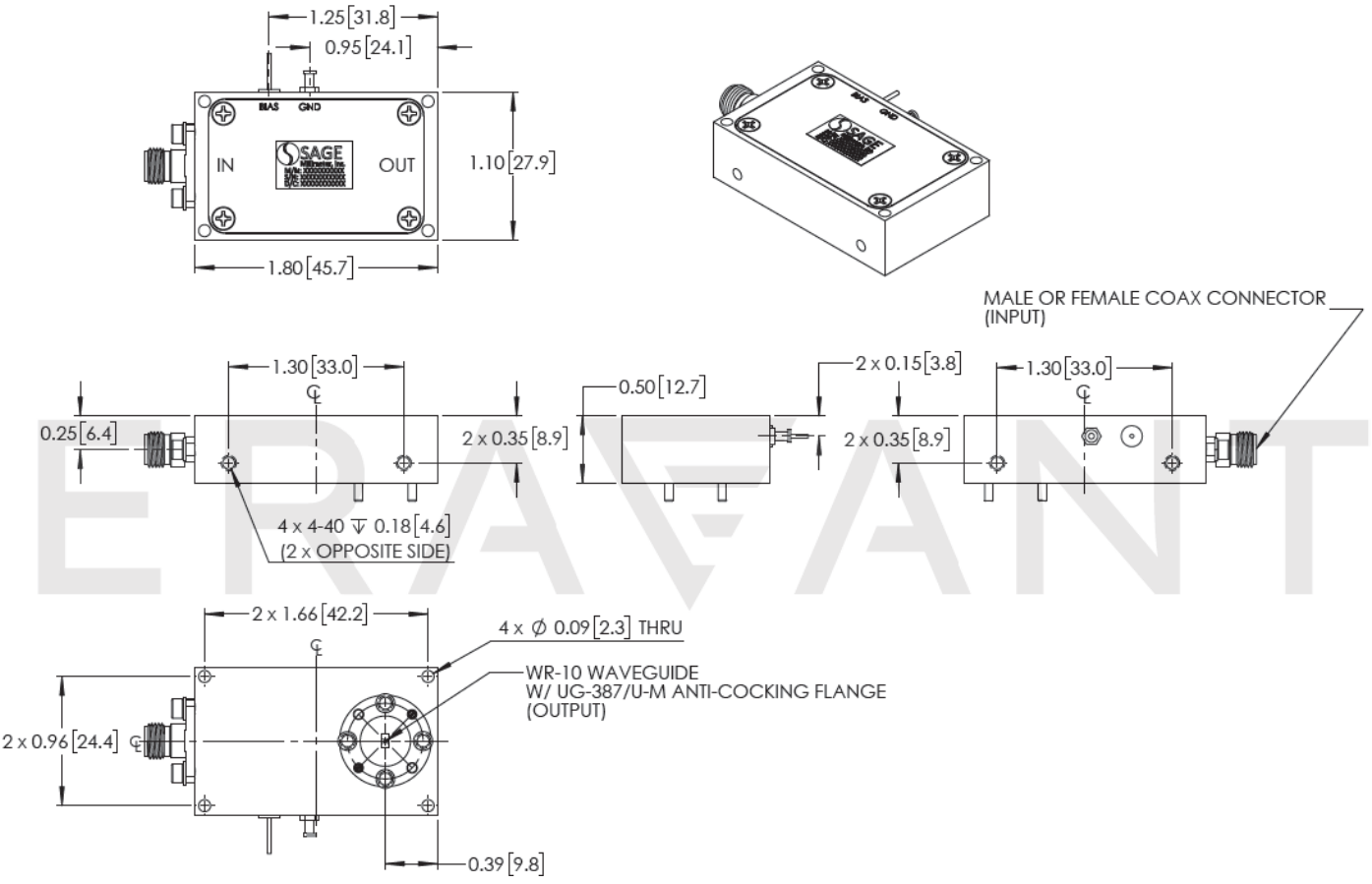
Copyright © 2023 by Eravant

Output Power vs. Frequency

Bias: +8V_{DC}/400 mA; Input Power: +3 dBm



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



Copyright © 2023 by Eravant

NOTE:

- On condition that test data is 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.
- 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.
- 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.

ERAVANT
MAKING MILLIMETERWAVE ACCESSIBLE

ERAVANT
MAKING MILLIMETERWAVE ACCESSIBLE

Copyright © 2023 by Eravant