SFA-1141441213-08SF-E1

F-Band, X12 Active Multiplier, 110 to 140 GHz, +13 dBm Pout

SFA-1141441213-08SF-E1 is an active X12 frequency multiplier. The multiplier has an input frequency of 9.16 to 11.67 GHz with a typical input power of +3 dBm and an output frequency of 110 to 140 GHz with a typical output power of +13 dBm. The DC power requirement for the multiplier is +8 V_{DC}/800 mA. The input port configuration is a female SMA connector and the output is a WR-08 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	9.16 GHz		11.67 GHz
Input Power		+3 dBm	+20 dBm
Output Frequency	110 GHz		140 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}	+15 V_{DC}
DC Supply Current		800 mA	
Specification Temperature		+25 ˚C	
Operating Temperature	0 ˚C		+50 ˚C

Mechanical Specifications:

Item	Specification
Input Port	SMA (F)
Output Port	WR-08 Waveguide with UG-387/U-M Anti-Cocking Flange
Bias	Solder Pin
Case Material	Aluminum
Finish	Gold Plated
Weight	1.2 Oz
Size	1.80” (L) X 1.00” (W) X 0.75” (H)
Outline	FA-SF-2CW-A-1.8

ECCN

3A001.b.7

FEATURES

- High Output Power
- X12 Multiplication

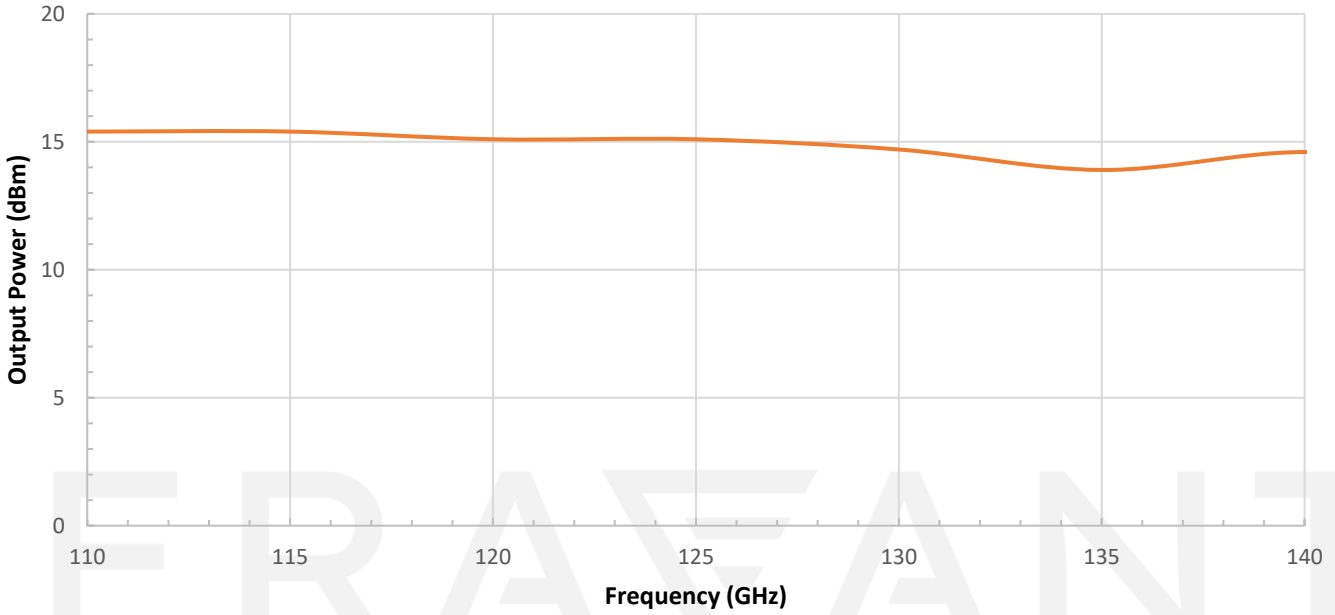
APPLICATIONS

- Frequency Extenders
- THz Systems

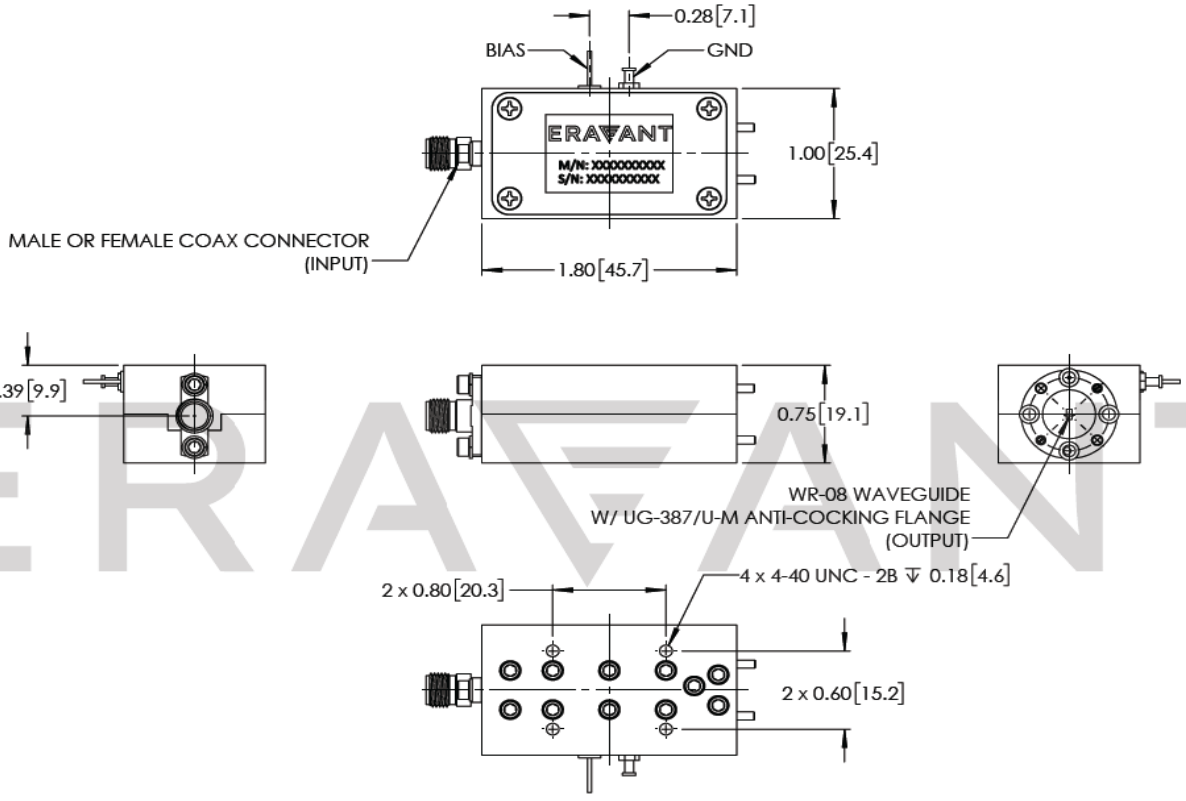
SUPPLEMENTAL DETAILS

Output Power vs. Frequency

Bias: +8 V_{DC}/803 mA



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.
- Proper torque, 8.0 ± 0.15 inch-pounds (0.90 ± 0.02 Nm), should be applied. **Eravant torque wrench, model SCH-08008-S1, is highly recommended.**

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