SFA-703863616-12SF-E1

E-Band, X6 Active Frequency Multiplier, 70 to 86 GHz, +16 dBm Pout

SFA-703863616-12SF-E1 is an active X6 frequency multiplier. The multiplier has an input frequency 11.66 to 14.33 GHz with a typical input power of +3 dBm and an output frequency of 70 to 86 GHz with a typical output power of +16 dBm. The multiplier also has a typical harmonic suppression of 15 dBc. The DC power requirement for the multiplier is +8 VDC/350 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.

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Input Frequency	11.66 GHz		14.33 GHz
Input Power		+ 3 dBm	+20 dBm
Output Frequency	70 GHz		86 GHz
Output Power		+16 dBm	
Harmonic Suppression		15 dBc	
Port Return Loss		10 dB	
DC Voltage	+6 V_{DC}	+8 V_{DC}	+15 V_{DC}
DC Supply Current		350 mA	
Specification Temperature		+25 ˚C	
Operating Temperature	0 ˚C		+50 ˚C

Mechanical Specifications:

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

ECCN

3A001.b.7.b.1

FEATURES

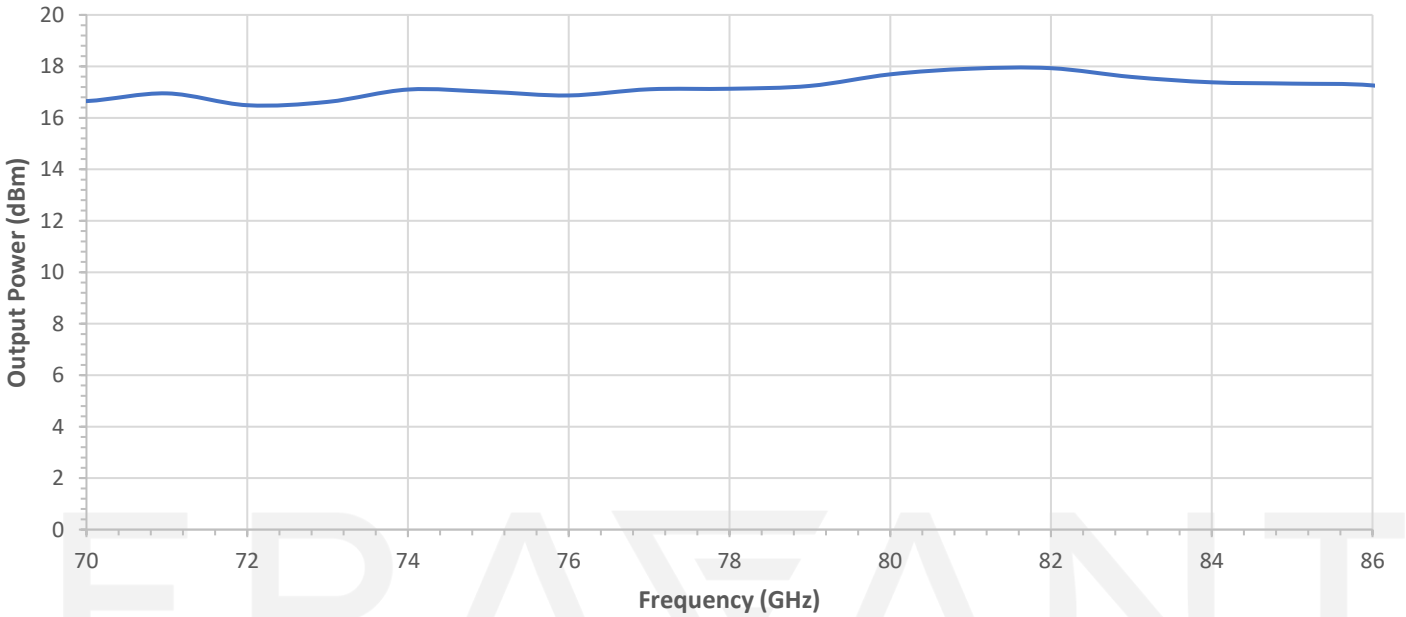
- Low Harmonic Components
- High Output Power

APPLICATIONS

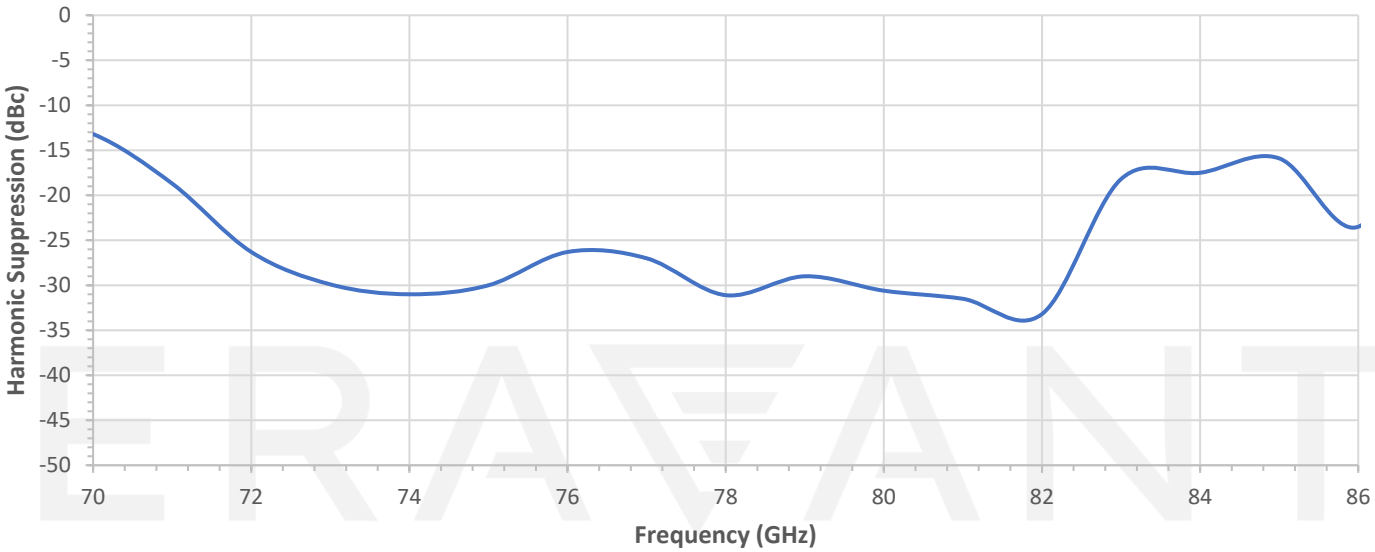
- Frequency Extenders
- Communication Systems
- Radar Systems

SUPPLEMENTAL DETAILS

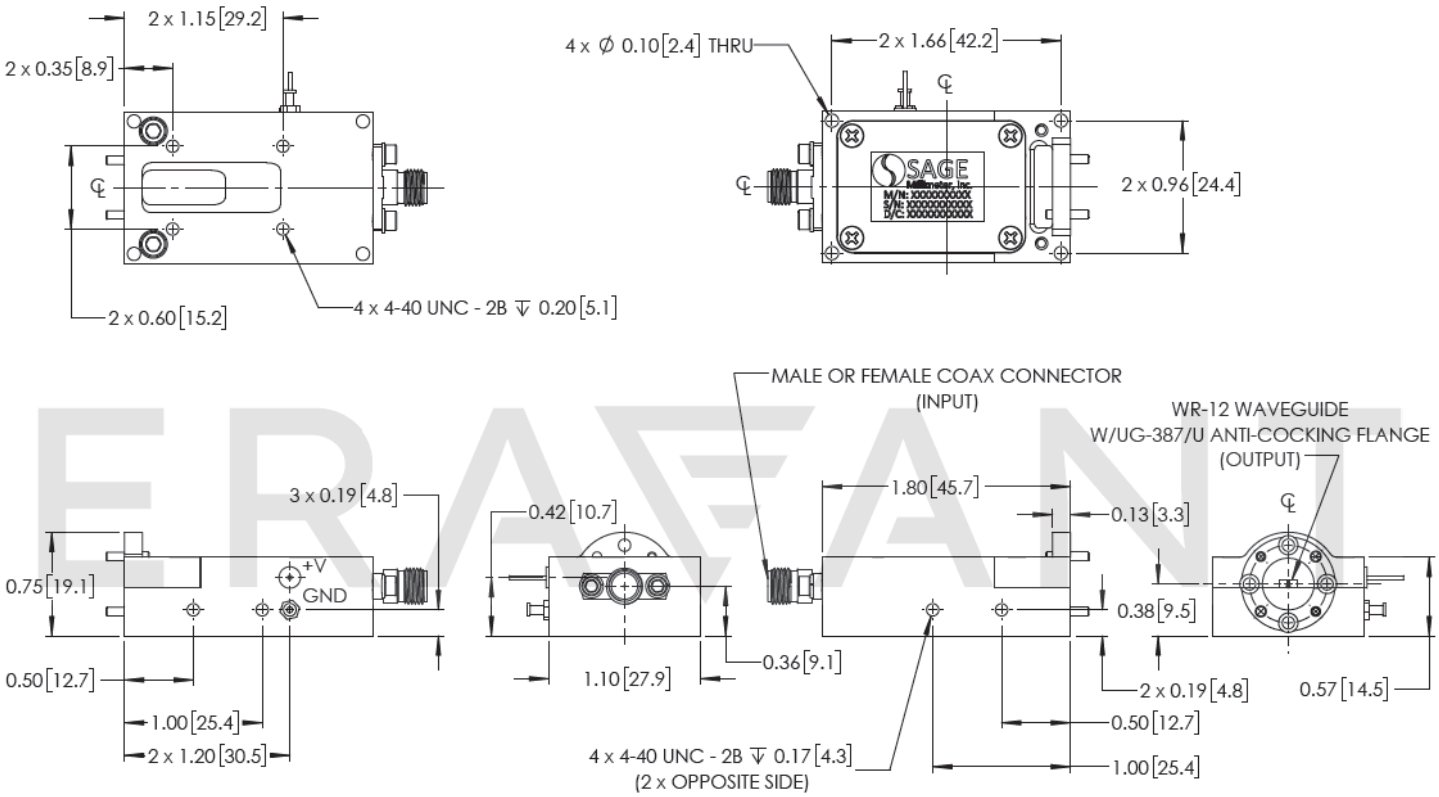
Output Power vs. Frequency



Harmonic Suppression vs. Frequency



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.**