

## SFA-203403416-SFKF-S1

### X4 Active Frequency Multiplier, 20 to 40 GHz

**SFA-203403416-SFKF-S1** is an active X4 frequency multiplier. The multiplier has an input frequency of 5 to 10 GHz with a typical input power of +5 dBm and an output frequency of 20 to 40 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 is a female SMA connector and the output is a female K connector. Other port configurations are available under different model numbers.



### Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Input Frequency	5 GHz		10 GHz
Input Power		+5 dBm	+10 dBm
Output Frequency	20 GHz		40 GHz
Output Power		+16 dBm	
Harmonic Suppression		-15 dBc	
Spurious		-60 dBc	
Return Loss		10 dB	
DC Voltage	+6 V <sub>DC</sub>	+8 V <sub>DC</sub>	+12 V <sub>DC</sub>
DC Supply Current		350 mA	
Specification Temperature		+25 °C	
Operating Temperature	0 °C		+50 °C

### Mechanical Specifications:

Item	Specification
Input	SMA (F)
Output	K (F)
Bias	Solder Pin
Size	Aluminum
Finish	Gold Plated
Weight	1.3 Oz
Size	1.20" (W) 1.20" (L) X 0.50" (H)
Outline	BG-SC-1

### ECCN

EAR99

### FEATURES

- Broadband Coverage
- Low Harmonic Components
- High Output Power

### APPLICATIONS

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

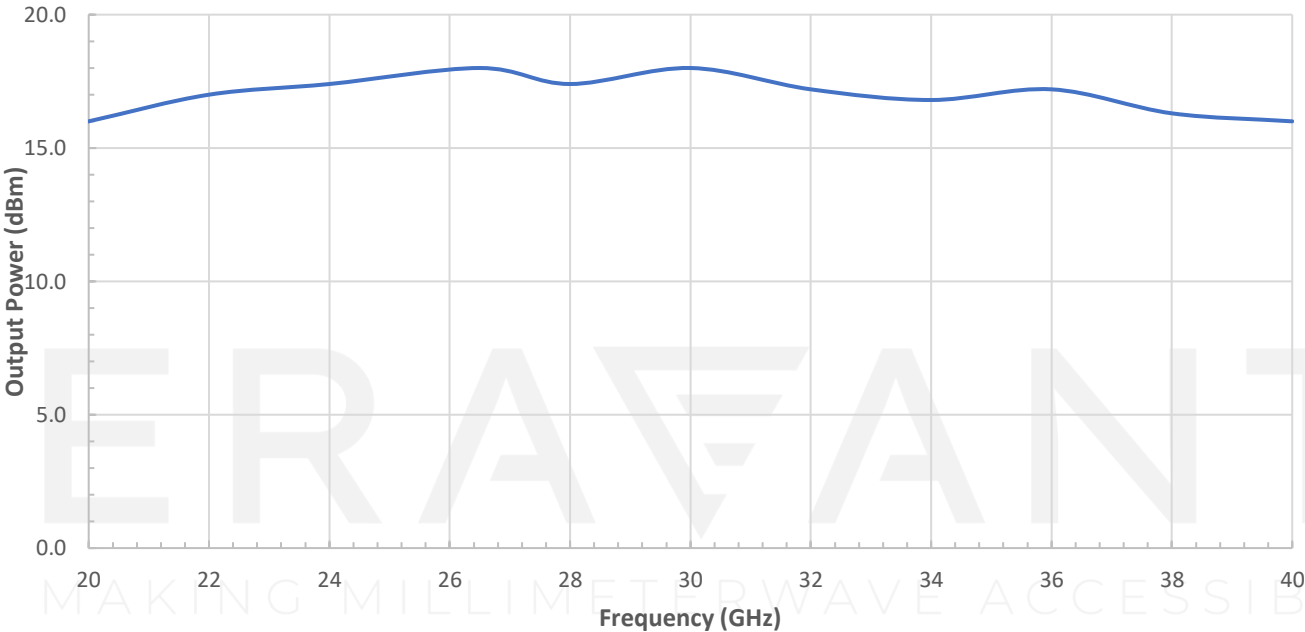
### SUPPLEMENTAL DETAILS



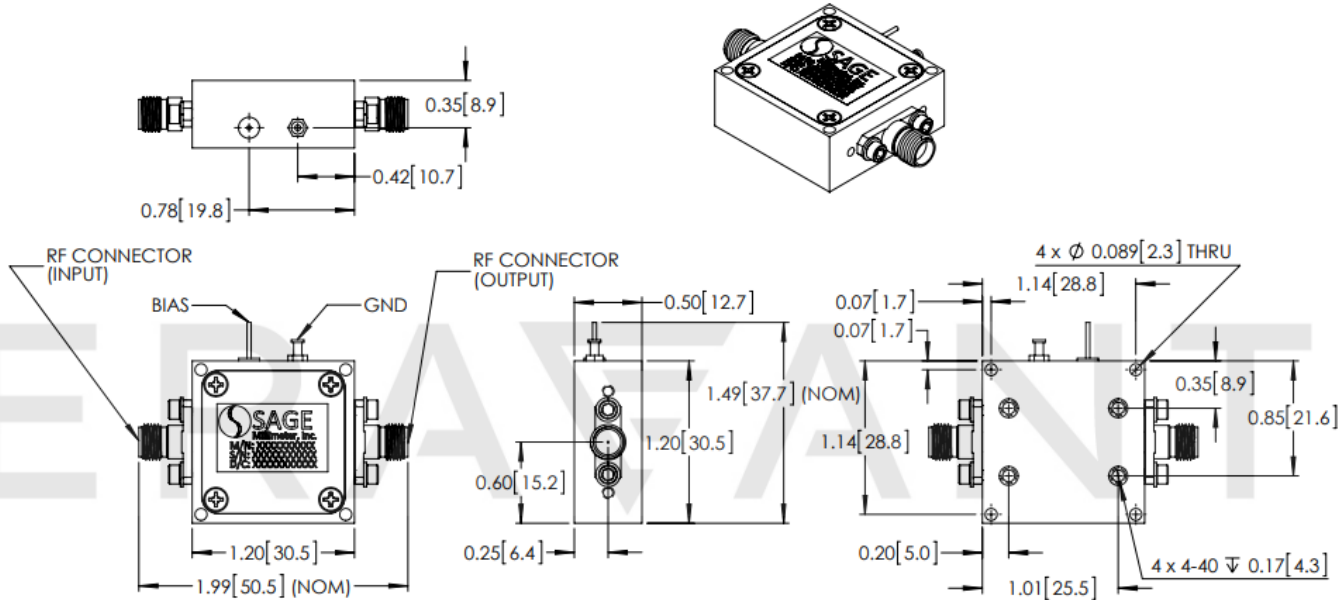
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Output Power vs. Frequency

Bias = +8 V<sub>DC</sub>/350 mA



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



**NOTE:**

- All data presented is collected from a sample lot. Actual data may vary unit to unit.
- All testing was performed under +25 °C case temperature.
- Other mechanical configurations are available under different model numbers
- Eravant reserves the right to change the information presented without notice.

**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 degrade performance and/or damage the device.
- For 1.35 mm, 1.85 mm, 2.4 mm, 2.92 mm, and SMA connectors proper torque should be applied:  $8.0 \pm 0.15$  inch-pounds ( $0.90 \pm 0.02$  Nm). Torque wrench model [SCH-08008-S1](#) is highly recommended.