

# U-Band, X2 Active Frequency Multiplier, 40 to 60 GHz, +15 dBm Pout

**SFA-403603215-VFKF-S1** is an active X2 frequency multiplier. The multiplier has an input frequency of 20 to 30 GHz with a typical input power of +5 dBm and an output frequency of 40 to 60 GHz with a typical output power of +15 dBm. The multiplier also has a typical harmonic suppression of -20 dBc. The DC power requirement for the multiplier is +8 V<sub>DC</sub>/400 mA. The input port configuration is a female K 2.92 mm connector and the output is female V 1.85 mm connector. Other port configurations are available under different model numbers.



**Electrical Specifications:** 

Parameter	Minimum	Typical	Maximum
Input Frequency	20 GHz		30 GHz
Input Power		+5 dBm	+10 dBm
Output Frequency	40 GHz		60 GHz
Output Power		+15 dBm	
Harmonic Suppression		-20 dBc	
Spurious		-60 dBc	
Port Return Loss		10 dB	
DC Voltage	+6 V <sub>DC</sub>	+8 V <sub>DC</sub>	+15 V <sub>DC</sub>
DC Supply Current		400 mA	
Specification Temperature		+25 °C	
Operating Temperature	0 °C		+50 °C

# **Mechanical Specifications:**

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Item	Specification	
Input Port	2.92 mm (F)	
Output Port	1.85 mm (F)	
Bias	Solder Pin	
Case Material	Aluminum	
Finish	Gold Plated	
Weight	1.3 Oz	
Size	1.20" (W) x 1.20" (L) x 0.50" (H)	
Outline	BG-SC-1	

#### **ECCN**

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# **FEATURES**

- Low Harmonic Emission
- High Output Power
- Low Harmonic Components

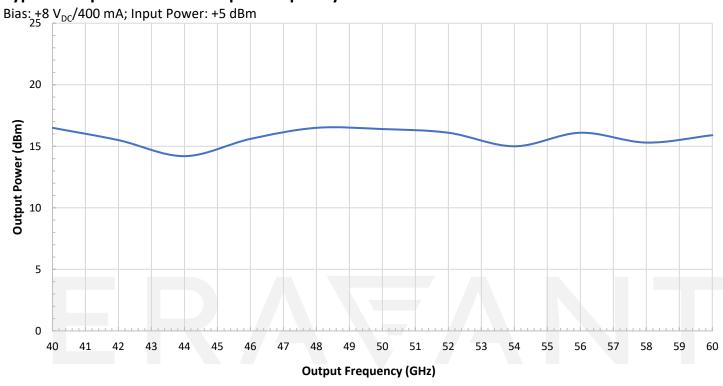
## **APPLICATIONS**

- Frequency Extenders
- Source Module
- Communication Systems

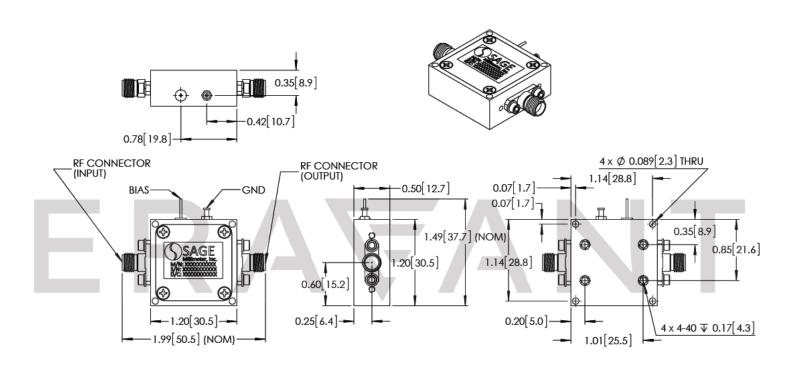
## **SUPPLEMENTAL DETAILS**



# **Typical Output Power vs. Output Frequency**



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





#### 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.
- 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 <u>SCH-08008-S1</u> is highly recommended.

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