

SFA-503753420-15SF-S1

V-Band, X4 Active Frequency Multiplier, 50 to 75 GHz, +20 dBm Pout

SFA-503753420-15SF-S1 is an active X4 frequency multiplier. The multiplier has an input frequency of 12.5 to 18.75 GHz with a typical input power of +3 dBm and an output frequency of 50 to 75 GHz with a typical output power of +20 dBm. The multiplier also has a typical harmonic suppression of -15 dBc. The DC power requirement for the multiplier is +8 VDC/770 mA. The input port configuration is a female SMA connector and the output is a WR-15 waveguide with a UG-385/U flange. Other port configurations are available under different model numbers.



Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Input Frequency	12.5 GHz		18.75 GHz
Input Power		+3 dBm	+20 dBm
Output Frequency	50.0 GHz		75.0 GHz
Output Power		+20 dBm	
Harmonic Suppression		-15 dBc	
Spurious		-60 dBc	
Port Return Loss		10 dB	
DC Voltage	+6 VDC	+8 VDC	+12 VDC
DC Supply Current		770 mA	
Specification Temperature		+25°C	
Operating Temperature	0°C		+50°C

Mechanical Specifications:

Item	Specification
Input Port	SMA (F)
Output Port	WR-15 Waveguide with UG-385/U Flange
Bias	Solder Pin
Case Material	Aluminum
Finish	Gold Plated
Weight	1.4 Oz
Size	1.10" (W) X 1.80" (L) X 0.50" (H)
Outline	FA-SV-1-1.8

ECCN

EAR99

FEATURES

- Broadband Coverage
- High Output Power
- Low Harmonic Emission

APPLICATIONS

- IEEE 802.11ab WiGig
- Frequency Extenders
- Source Modules
- Communications Systems

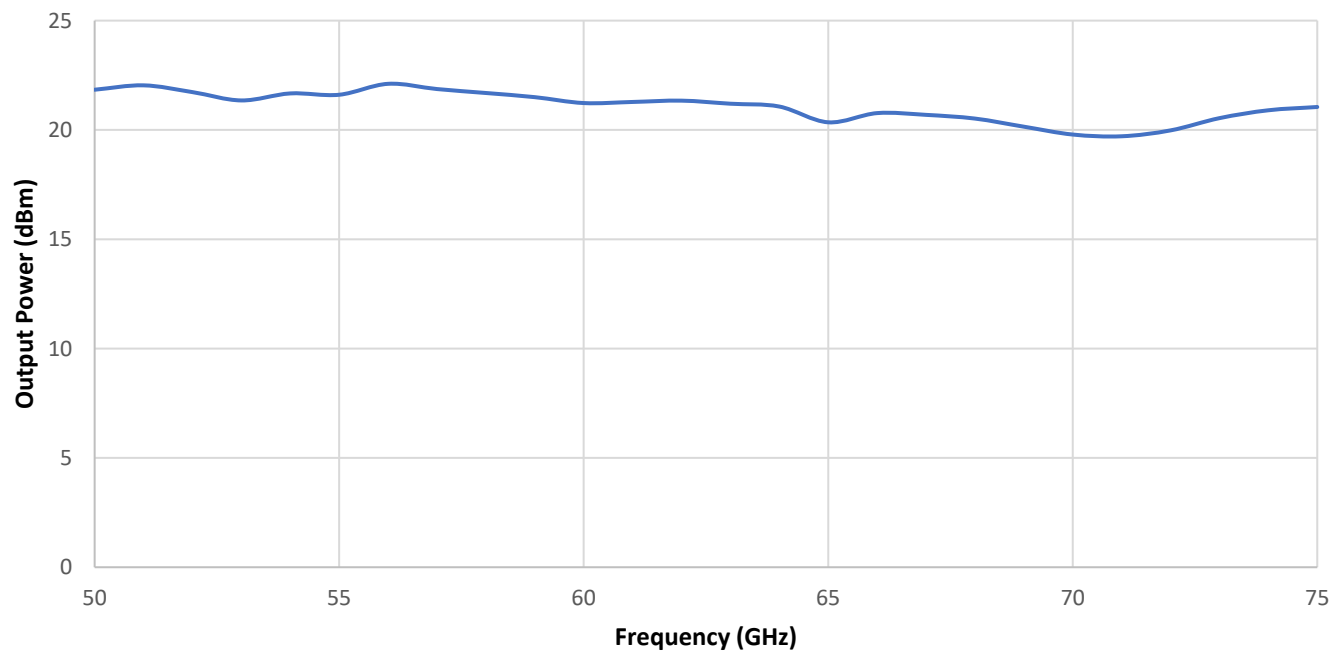
SUPPLEMENTAL DETAILS



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Typical Output Power vs. Frequency

Bias: +8V_{DC}/770 mA; Input Power = +3 dBm

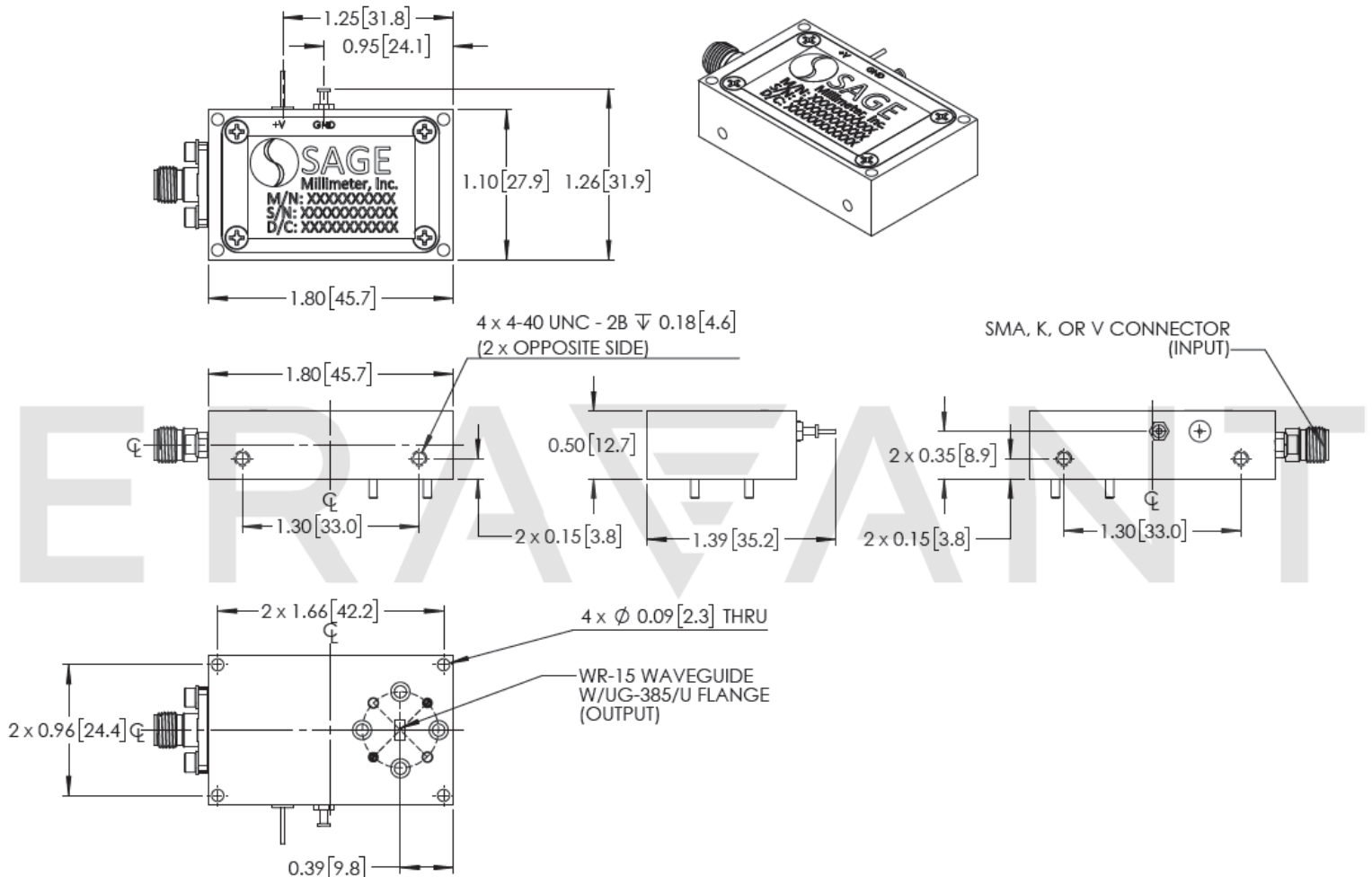


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MAKING MILLIMETERWAVE ACCESSIBLE

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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.
- On condition that simulated test data is provided, actual measured data may slightly vary.
- 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.
- If a waveguide is present, any foreign objects in the waveguide will cause performance degradation and may damage or destroy the unit.
- 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