

V-Band, X4 Active Frequency Multiplier, 54 to 66 GHz, +23 dBm P_{out}**Description:**

Model SFA-543663422-15SF-S1 is an active X4 frequency multiplier. The multiplier has an input frequency of 13.5 to 16.5 GHz with a typical input power of 0 dBm and an output frequency of 54 to 66 GHz with a typical output power of +23 dBm. The multiplier also has a typical harmonic suppression of -20 dBc. The DC power requirement for the multiplier is +8 V_{DC}/1160 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.

**Features:**

- Broadband Coverage
- High Output Power
- Low Harmonic Emission

Applications:

- Frequency Extenders
- Source Modules
- Communication Systems

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Input Frequency	13.5 GHz		16.5 GHz
Input Power		+0 dBm	+3 dBm
Output Frequency	54.0 GHz		66.0 GHz
Output Power		+23 dBm	
Harmonic Suppression		-20 dBc	
Spurious		-60 dBc	
DC Voltage	+6 V _{DC}	+8 V _{DC}	+12 V _{DC}
DC Supply Current		1160 mA	
Specification Temperature		+25 °C	
Operating Temperature	0 °C		+50 °C

Mechanical Specifications:

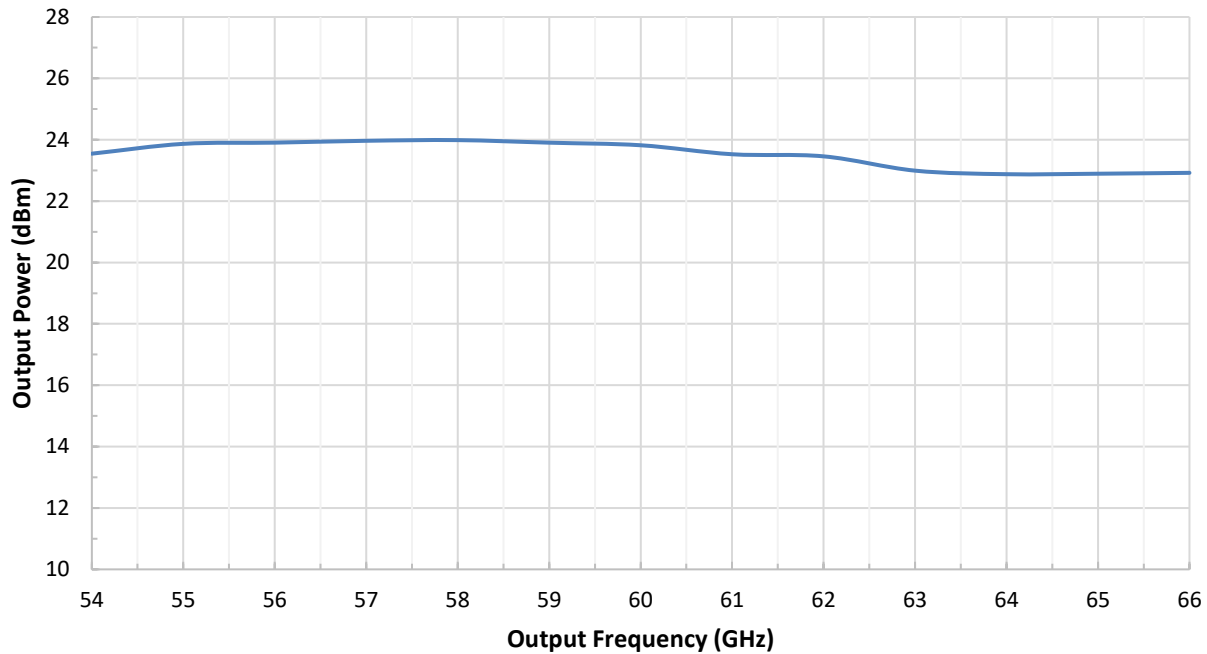
Item	Specification
Input Port	SMA (F)
Output Port	WR-15 Waveguide with UG-385/U Flange
Bias	Solder Pin
Case Material	Aluminum
Finish	Gold Plated
Weight	1.4 Oz
Size	1.10" (W) X 1.80" (L) X 0.50" (H)
Outline	FA-SV-1-1.8



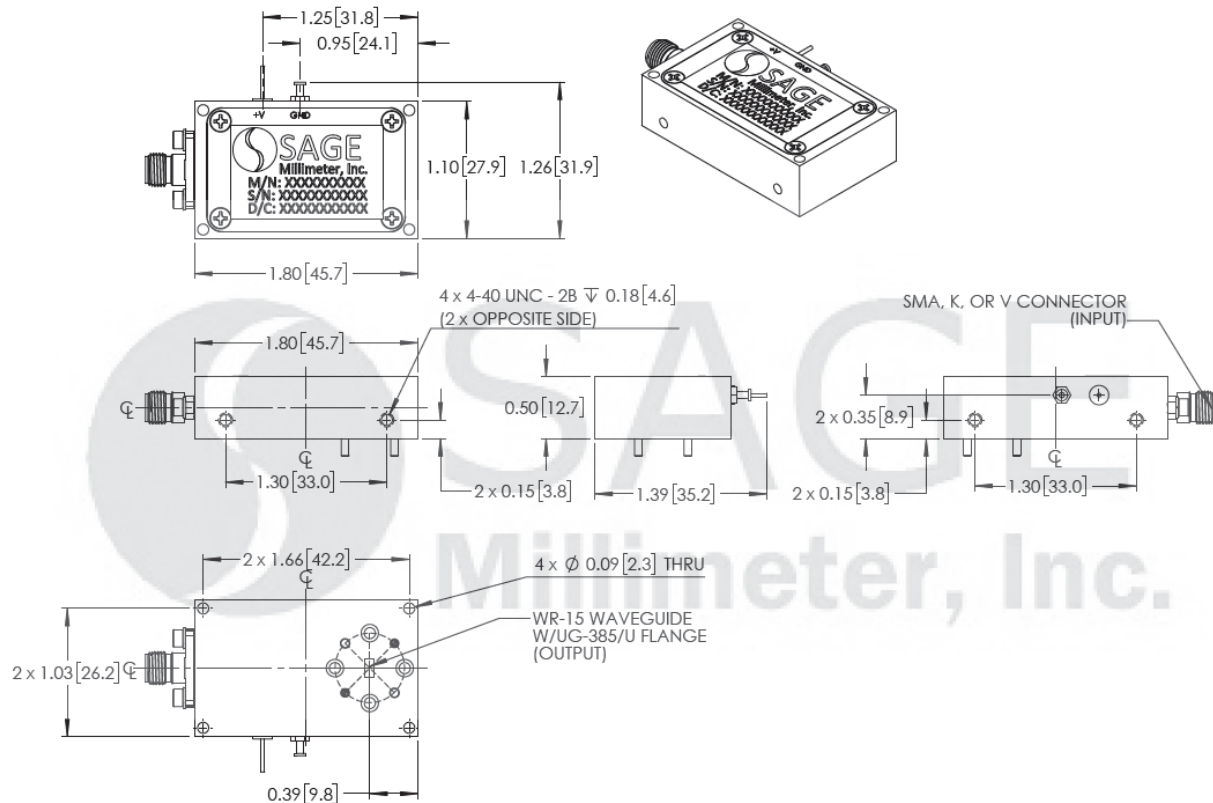
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Typical Output Power vs. Output Frequency

Bias: +8 to +12 VDC/828 mA



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



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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.
- SAGE Millimeter, Inc. reserves the right to change the information presented without notice.
- Other mechanical configurations are available under different model number.

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 (0.92 ± 0.05 Nm), should be applied. **SAGE Millimeter torque wrench, model SCH-08008-S1, is highly recommended.**

