



V-Band Transmitter Sub-Assembly, 54 to 64 GHz, 34 dBm EIRP

Description:

Model SST-5931031914-15-C1-HU1

is an V-Band transmitter sub-assembly integrated over a baseplate. The transmitter has a typical LO to TX gain of 14 dB with a typical EIRP of +34 dBm in the frequency range of 54 to 64 GHz. The transmitter includes a X8 multiplier chain and requires +5 dBm input at the frequency range of



6.75 to 8 GHz. Isolator provides 28 dB typical isolation between RF and LO ports. The transmitter includes conical horn antenna (SAC-1533-141-S2) with 15 dBi gain and RHCP polarization which can be switched by reversing polarizer direction. The LO port is equipped with female SMA.

Features:

- High Output Power
- High Gain
- Good Gain Flatness

Applications:

- Radar Systems
- Communication Systems

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Output Frequency	54 GHz		64 GHz
TX Output Power		+19 dBm	
TX EIRP		+34 dBm	
LO to TX Linear Gain		14 dB	
Polarization		RHCP	
Horn Antenna Gain		15 dBi	
Amplifier Gain		30 dB	
LO Input Frequency	6.75 GHz		8 GHz
LO Input Power	+2 dBm	+5 dBm	+10 dBm
RF to LO Isolation		28 dB	
Variable Attenuation Range		30 dB	
DC Voltage Supply		+12 V _{DC}	+15 V _{DC}
LO Current Supply		1100 mA	
Specification Temperature		+25 °C	
Operating Temperature	0 °C		+50 °C





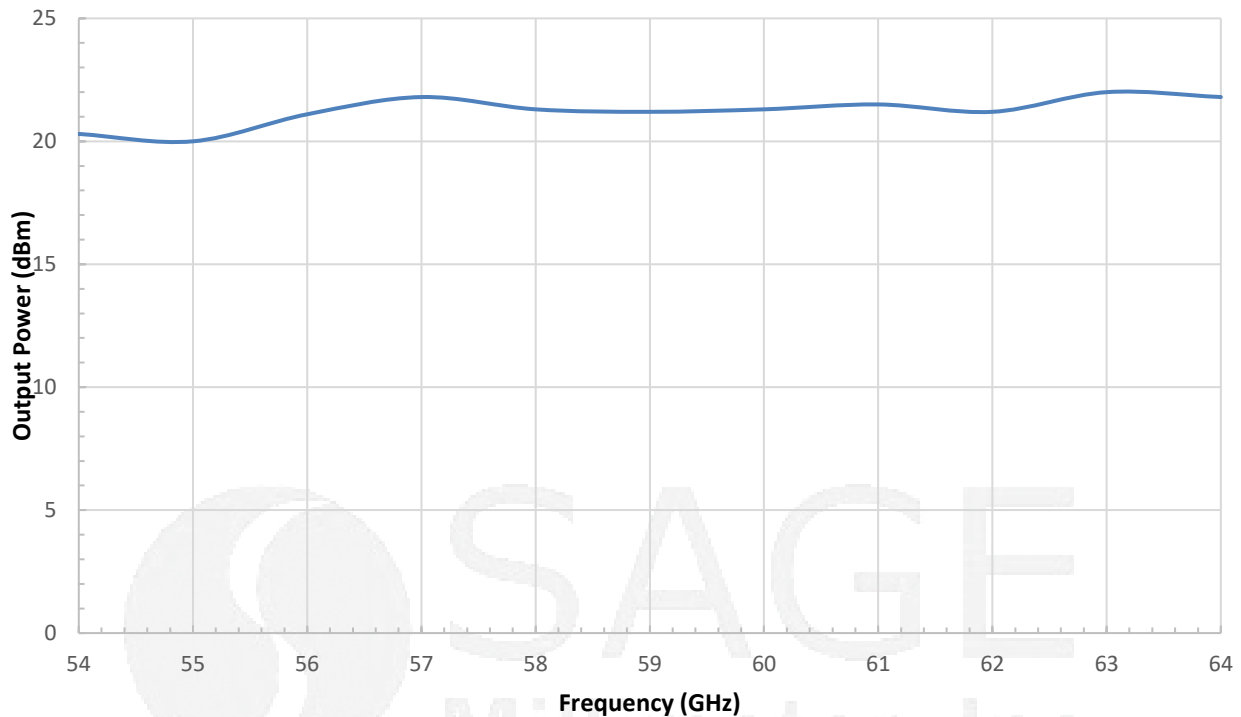
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Mechanical Specifications:

Item	Specification
RF Output	Conical Horn (SAC-1533-141-S2)
LO Ports	SMA (F)
Bias	Solder Pin
Finish	Gold Plated
Size	9.21" (L) x 5.41" (L) X 3.98" (H)
Baseplate Size	9.21" (L) x 5.41" (L) X 0.16" (H)
Outline	ST-SV-HU1

Typical Output Power vs. Frequency

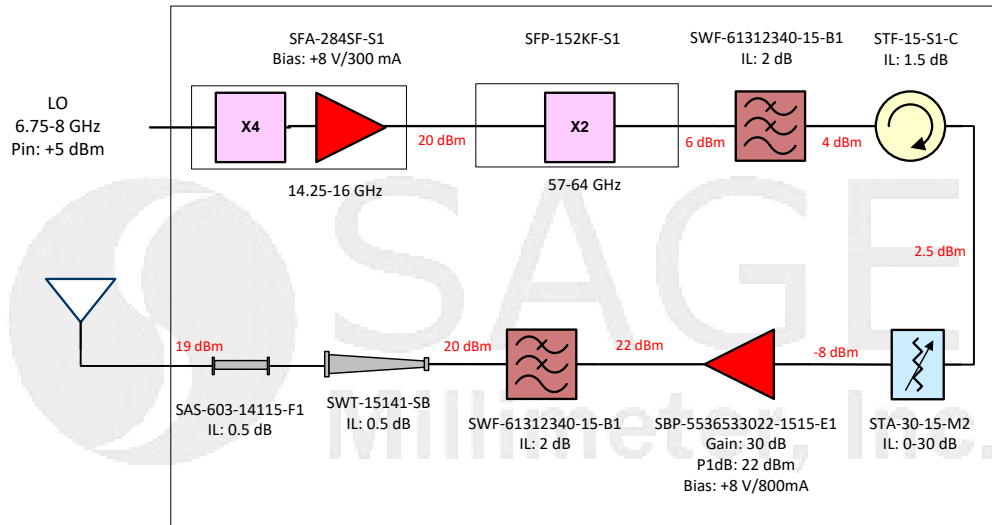
Bias: +12 V_{DC}/1100 mA



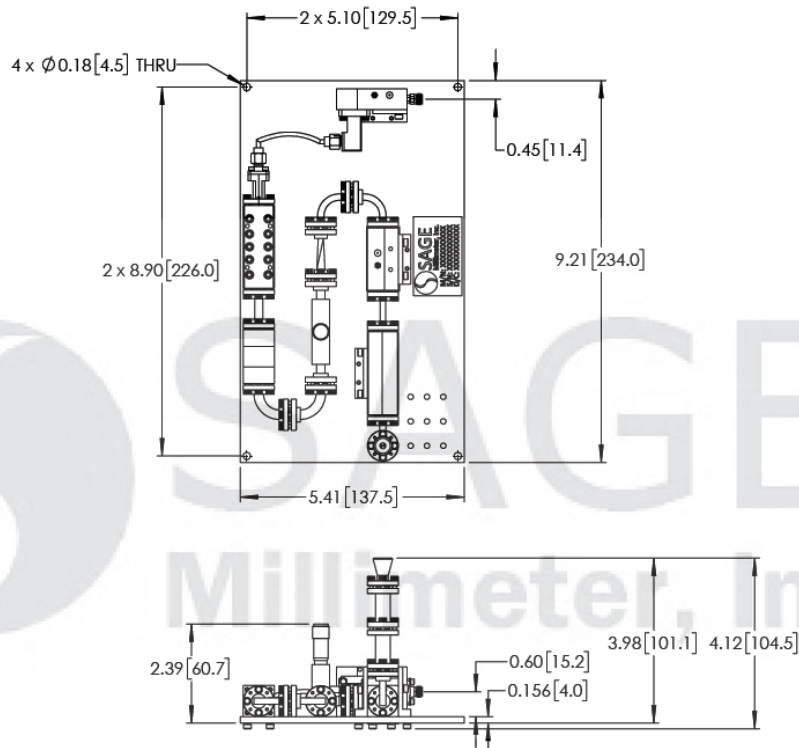


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Block Diagram:



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



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Note:

- SAGE Millimeter, Inc. 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.
- Any foreign objects in the waveguide will cause performance degradation and possible device damage.
- The case temperature of the device shall never exceed +50°C. Use proper heatsink or fan if necessary.



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