

WR-10 Transmitter, 90 to 100 GHz, 23 dBm P1dB, 25 dB Gain

Description:

Model SST-9531032425-10-SE1 is a WR-10 integrated transmitter module for radar systems. The transmitter has a typical conversion gain of 25 dB with a typical P1dB of 23 dBm in the frequency range of 90 to 100 GHz. The required LO power is +5 dBm between frequencies of 11 and 12.5 GHz. The RF transmit port is a WR-10 Waveguide with UG-387/U-M Anti-Cocking Flange while the LO and IF port is female SMA connectors. Other port configurations, are also available under different model numbers.



Features:

- High Gain and Power
- Built in x8 LO Multiplier
- Fully Integrated Module

Applications:

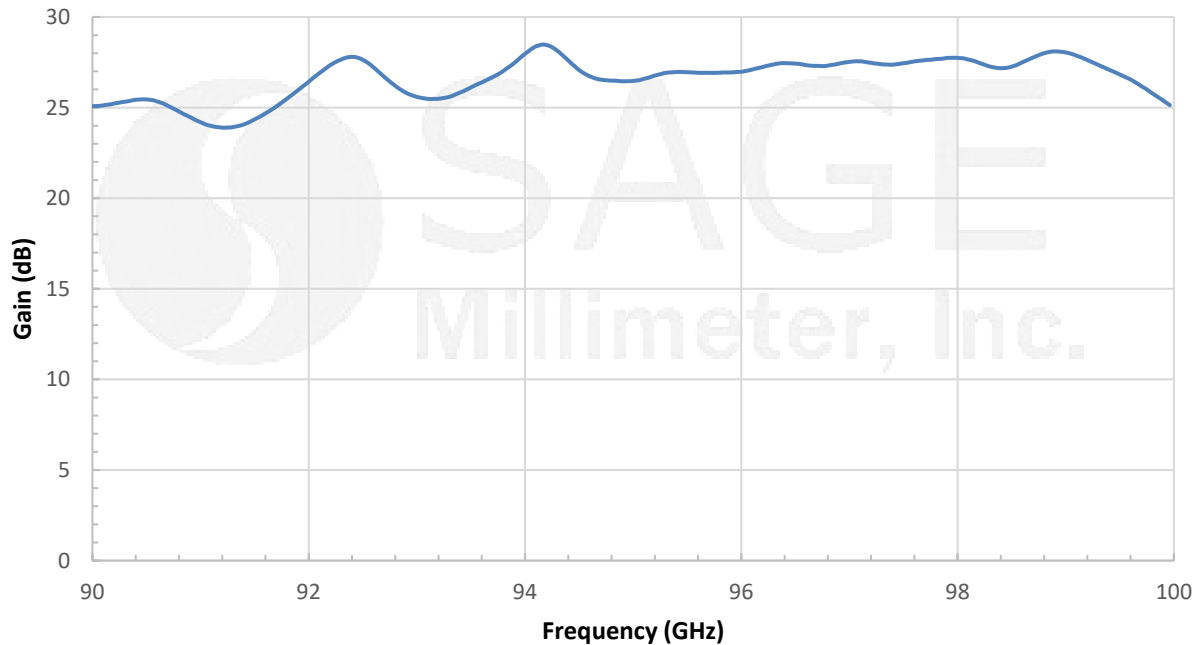
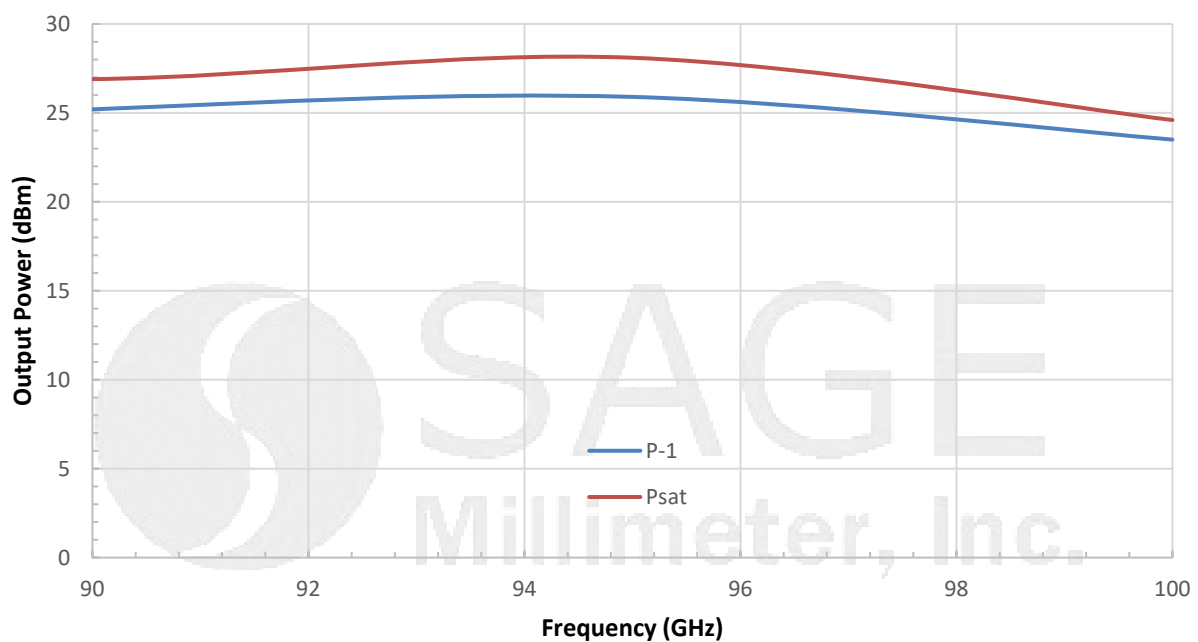
- Radar Systems
- Earth Observation and Research

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
RF Output Frequency	90 GHz		100 GHz
IF Input Frequency	DC		12 GHz
IF Input Power			+7 dBm
LO Frequency	11 GHz		12.5 GHz
LO Input Power		+5 dBm	+15 dBm
Conversion Gain		25 dB	
P1dB (DSB)		+23 dBm	
Psat (DSB)		+25 dBm	
Bias Voltage	+6 V _{DC}	+8 V _{DC}	+12 V _{DC}
Bias Current		1.85 A	
Specification Temperature		+25 °C	
Operating Temperature	0 °C		+50 °C

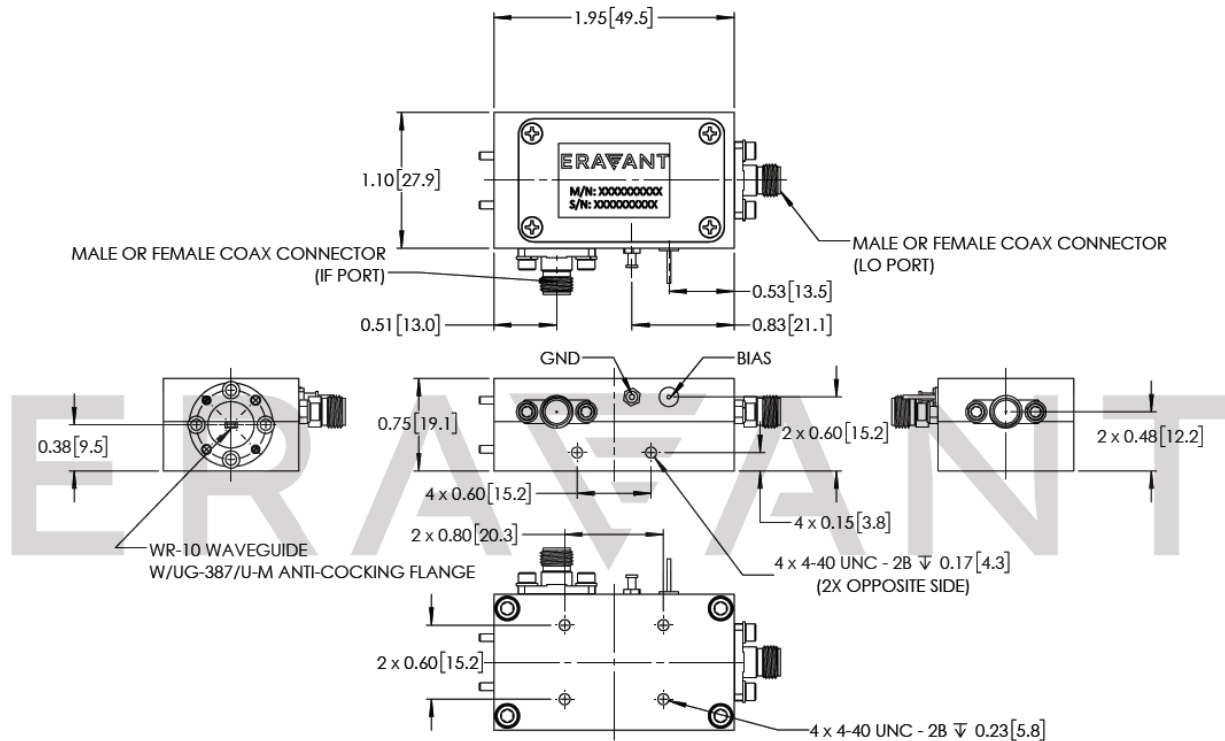
Mechanical Specifications:

Item	Specification
RF Port	WR-10 Waveguide with UG-387/U-M Anti-Cocking Flange
LO Port	SMA (F)
IF Port	SMA (F)
Bias	Solder Pin
Case Material	Aluminum
Finish	Gold Plated
Weight	2.0 Oz
Size	1.10" (W) X 1.95" (L) X 0.75" (H)
Outline	SR-SW-A-1

WR-10 Transmitter, 90 to 100 GHz, 23 dBm P1dB, 25 dB Gain**Gain vs. Frequency**Bias: +8 V_{DC}/1902 mA**Output Power vs. Frequency**Bias: +8 V_{DC}/1902 mA

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



Note:

- 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.
- Proper torque, 8.0 ± 0.15 inch-pounds (0.90 ± 0.02 Nm), should be applied. **Eravant torque wrench, model SCH-08008-S1, is highly recommended.**