

WR-12 Transmitter, 71 to 86 GHz, 22 dBm P1dB, 25 dB Gain

Description:

Model SST-7931532225-12-SE1 is a WR-12 integrated transmitter module for automotive radar and communication applications. The transmitter has a typical conversion gain of 25 dB with a typical P1dB of 22 dBm in the frequency range of 71 to 86 GHz. The required LO power is +5 dBm between frequencies of 11.5 and 14.67 GHz. The RF transmit port is a WR-12 Waveguide with UG-387/U 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 x6 LO Multiplier
- Fully Integrated Module

Applications:

- Automotive Radar
- Communication Systems

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
RF Output Frequency	71 GHz		86 GHz
IF Input Frequency	DC		12 GHz
IF Input Power			+7 dBm
LO Frequency	11.5 GHz		14.67 GHz
LO Input Power		+5 dBm	+15 dBm
Conversion Gain		25 dB	
P1dB (DSB)		+22 dBm	
Psat (DSB)		+23 dBm	
Bias Voltage	+6 V _{DC}	+8 V _{DC}	+12 V _{DC}
Bias Current		1 A	
Specification Temperature		+25 °C	
Operating Temperature	0 °C		+50 °C

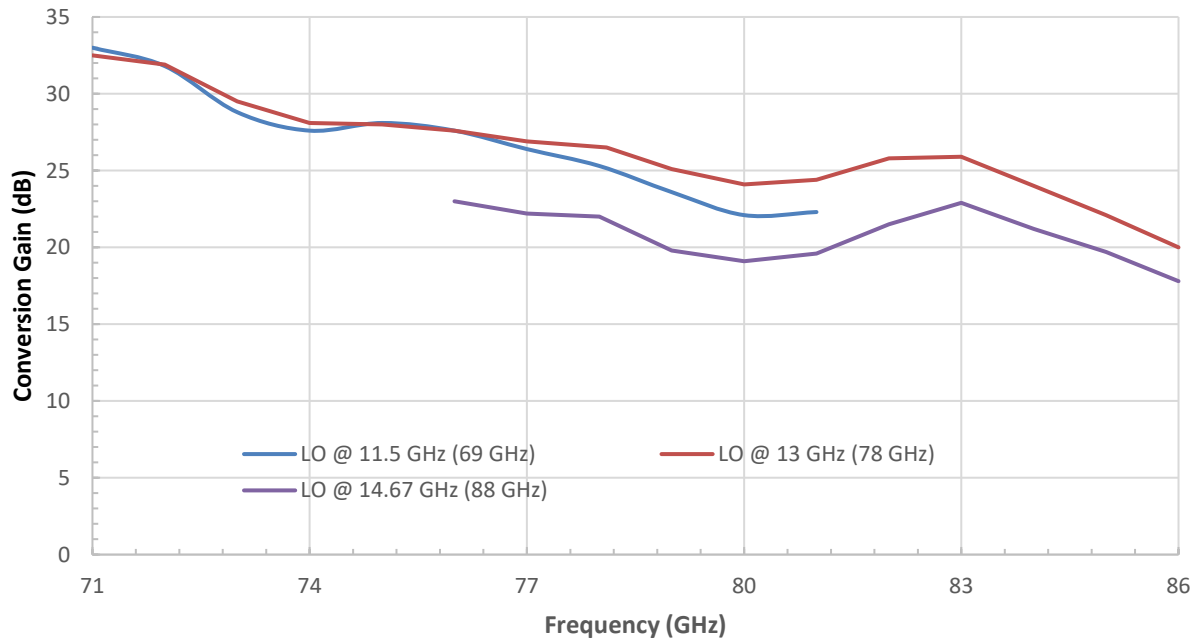
Mechanical Specifications:

Item	Specification
RF Port	WR-12 Waveguide with UG-387/U 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-SE-A-2

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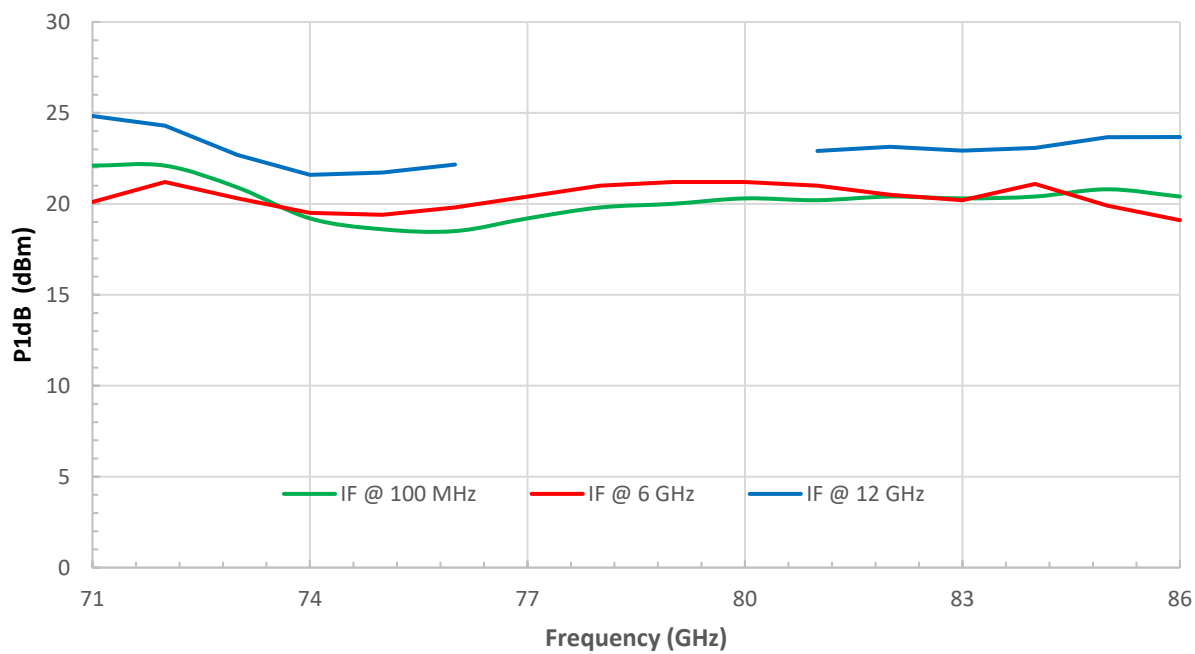
Conversion Gain vs Frequency

Bias: +8 VDC/1081 mA



P1dB vs Frequency

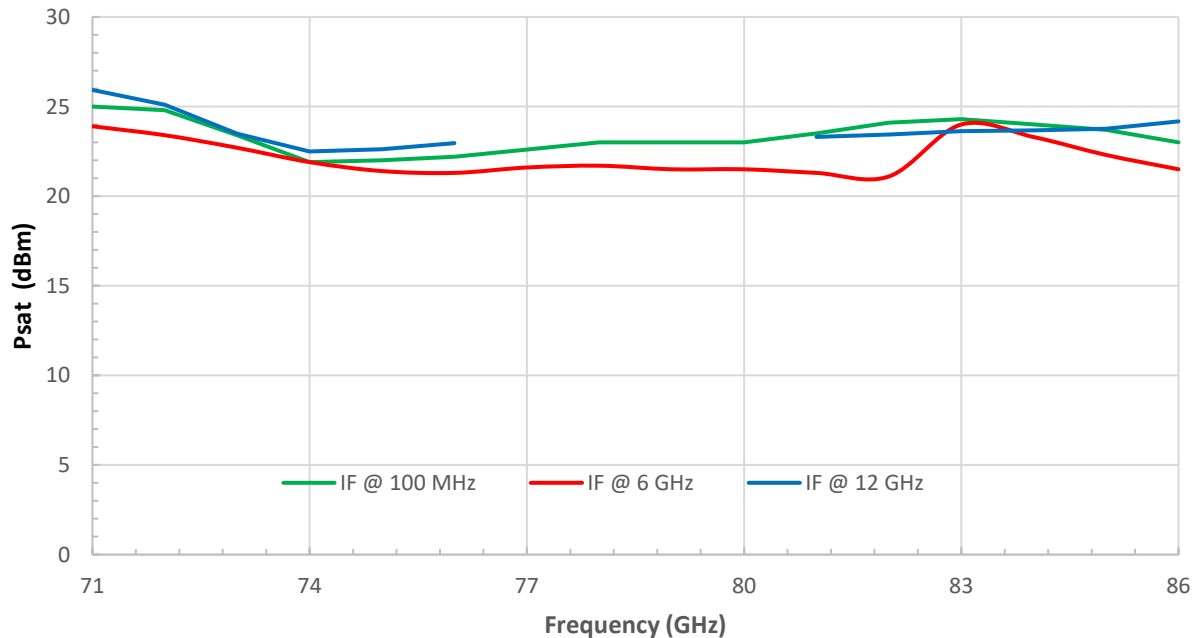
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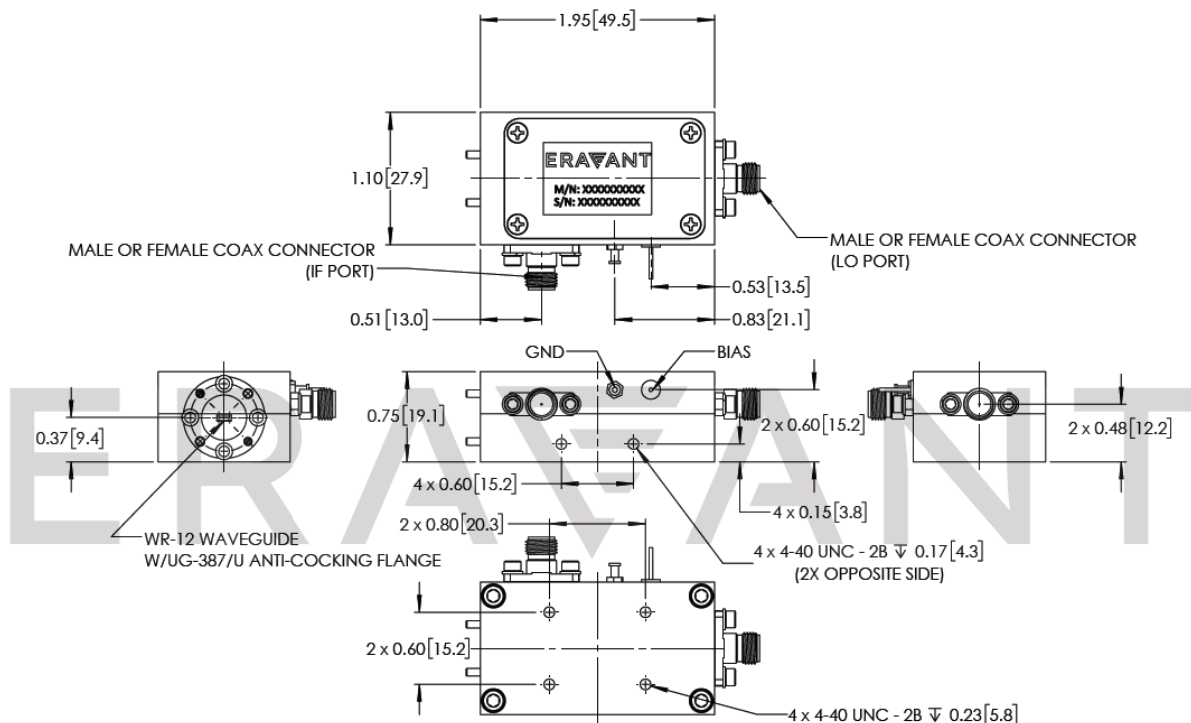
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Psat vs Frequency

Bias: +8 VDC/1081 mA



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



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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.**

