SST-7930532225-12-SE1

WR-12 Transmitter, 76 to 81 GHz, 21 dBm P_{1dB}, 25 dB Gain

SST-7930532225-12-SE1 is a WR-12 integrated transmitter module for automotive radar applications. The transmitter has a typical conversion gain of 25 dB with a typical P1dB of 21 dBm in the frequency range of 76 to 81 GHz. The required LO power is +5 dBm between frequencies of 12.5 and 13.33 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.

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
RF Output Frequency	76 GHz		81 GHz
IF Input Frequency	DC		6 GHz
IF Input Power			+7 dBm
LO Frequency	12.5 GHz		13.33 GHz
LO Input Power		+5 dBm	+15 dBm
Conversion Gain		25 dB	
P_{1dB} (DSB)		+21 dBm	
P_{sat} (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 Ports	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

ECCN

3A001.b.7

FEATURES

- High Gain and Power
- Built in x6 LO Multiplier
- Fully Integrated Module

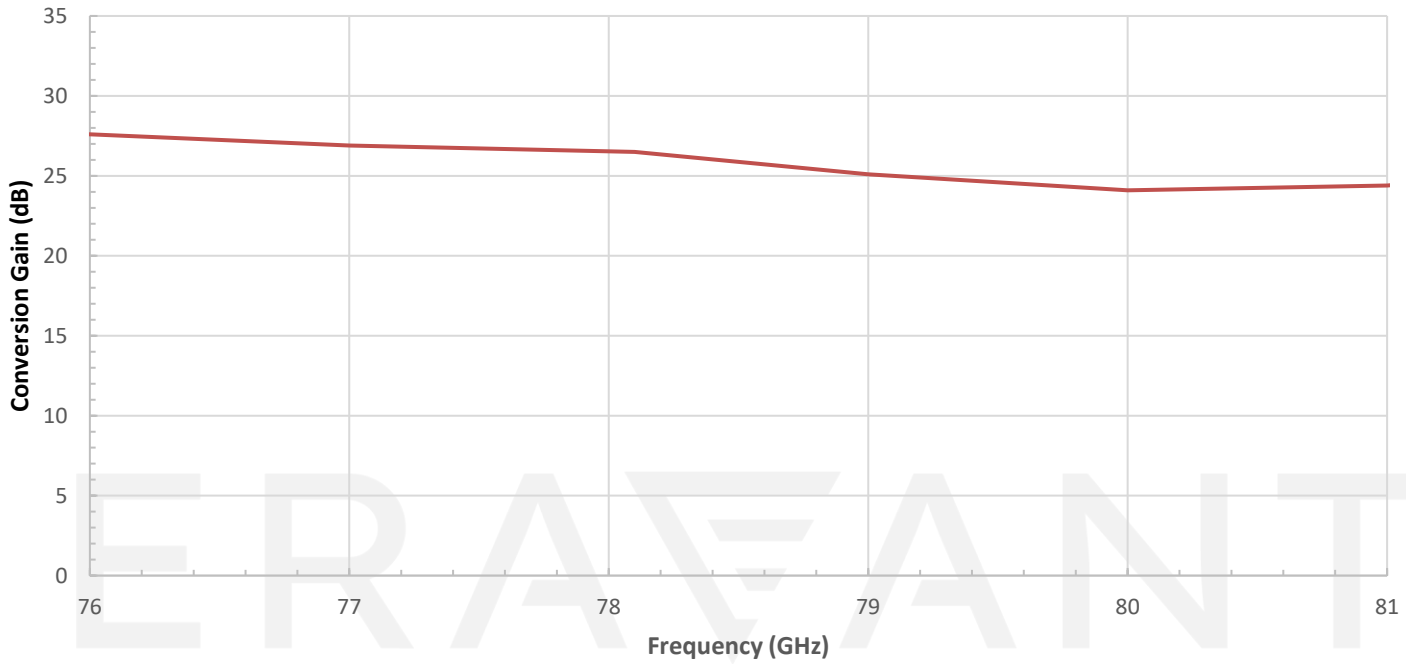
APPLICATIONS

- Automotive Radar

SUPPLEMENTAL DETAILS

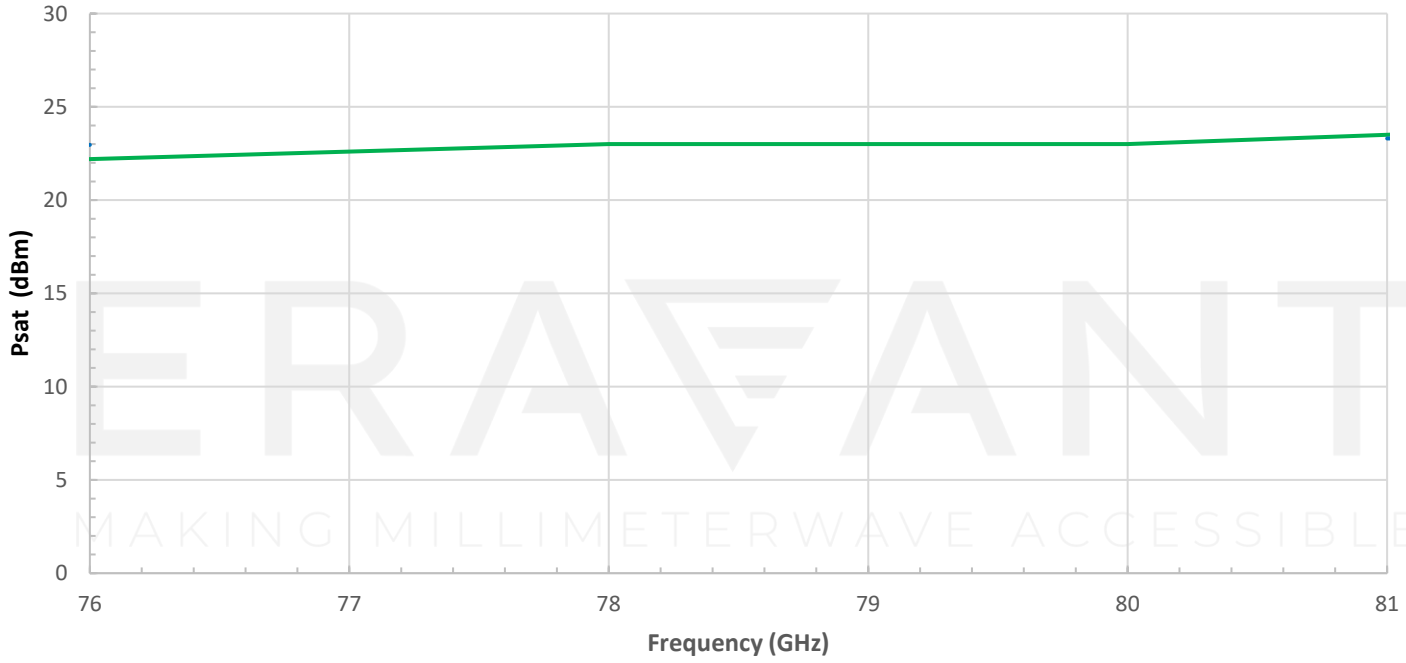
Conversion Gain vs Frequency

Bias: +8 VDC/1081 mA

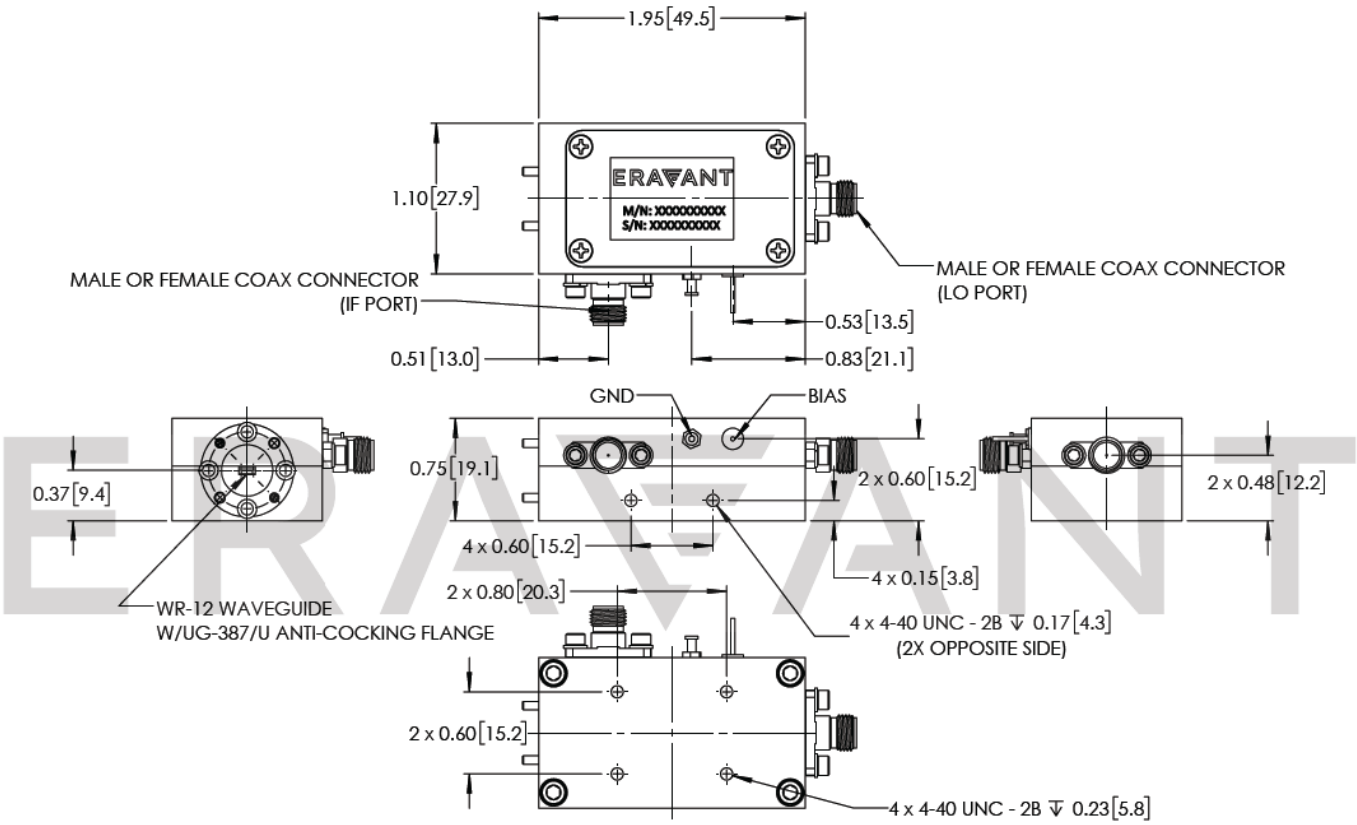


Psat vs Frequency

Bias: +8 VDC/1081 mA



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.
- 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