

SST-4130732825-22-SE1

WR-22 Transmitter, 37 to 44 GHz, 26 dBm P_{1dB}, 25 dB Gain

SST-4130732825-22-SE1 is a WR-22 integrated transmitter module for Starlink and Milstar applications. The transmitter has a typical conversion gain of 25 dB with a typical P_{1dB} of 26 dBm in the frequency range of 37 to 44 GHz. The required LO power is +0 dBm between frequencies of 9 and 11 GHz. The RF transmit port is a WR-22 Uni-Guide™ Waveguide with UG-383/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	37 GHz		44 GHz
IF Input Frequency	DC		7 GHz
IF Input Power	+5 dBm		+18 dBm
LO Frequency	9 GHz		11 GHz
LO Input Power		+0 dBm	+5 dBm
LO Leakage		+20 dBm	
Conversion Gain		25 dB	
P _{1dB} (DSB)		+26 dBm	
P _{sat} (DSB)		+28 dBm	
Bias Voltage	+6 V _{DC}	+8 V _{DC}	+12 V _{DC}
Bias Current		1.2 A	
Specification Temperature		+25°C	
Operating Temperature	0°C		+50°C

Mechanical Specifications:

Item	Specification
RF Ports	WR-22 Uni-Guide™ Waveguide with UG-383/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 2.33" (L) X 0.40" (H)
Outline	SR-SQ-A-3

ECCN

3A001.b.7

FEATURES

- High Gain and Power
- Built in x4 LO Multiplier
- Fully Integrated Module

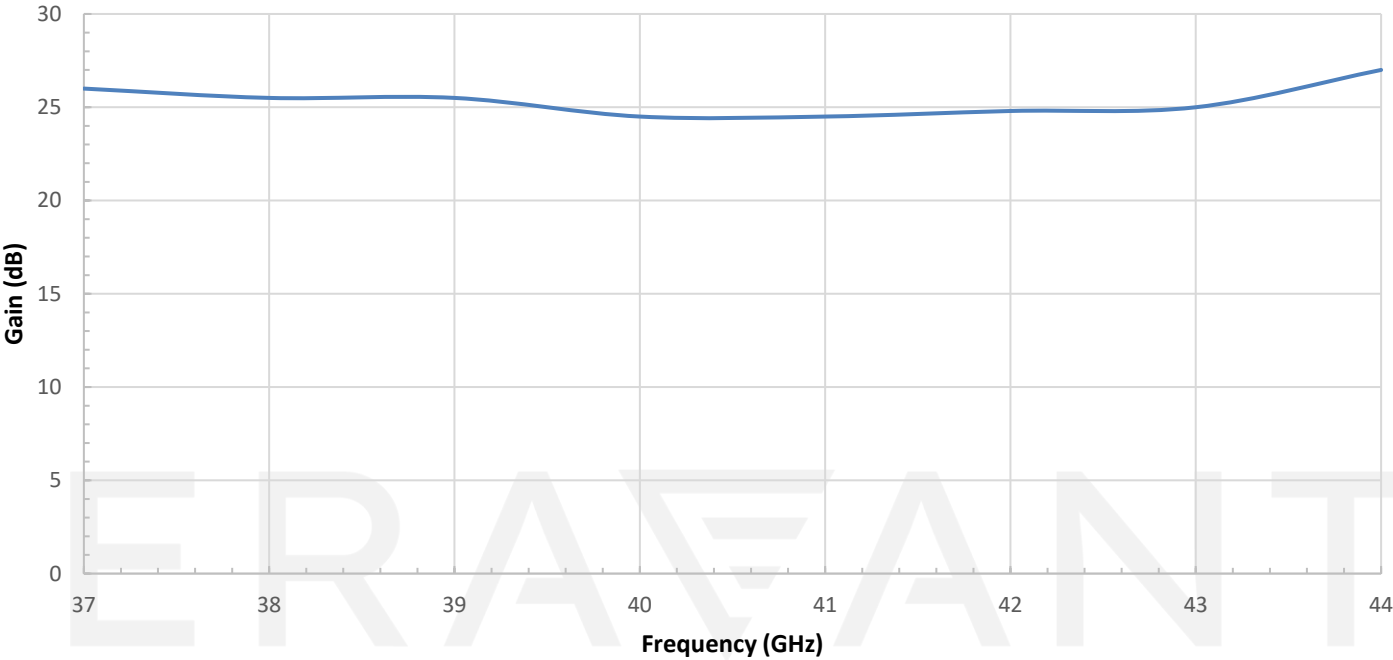
APPLICATIONS

- 5G Systems
- Starlink
- Milstar

SUPPLEMENTAL DETAILS

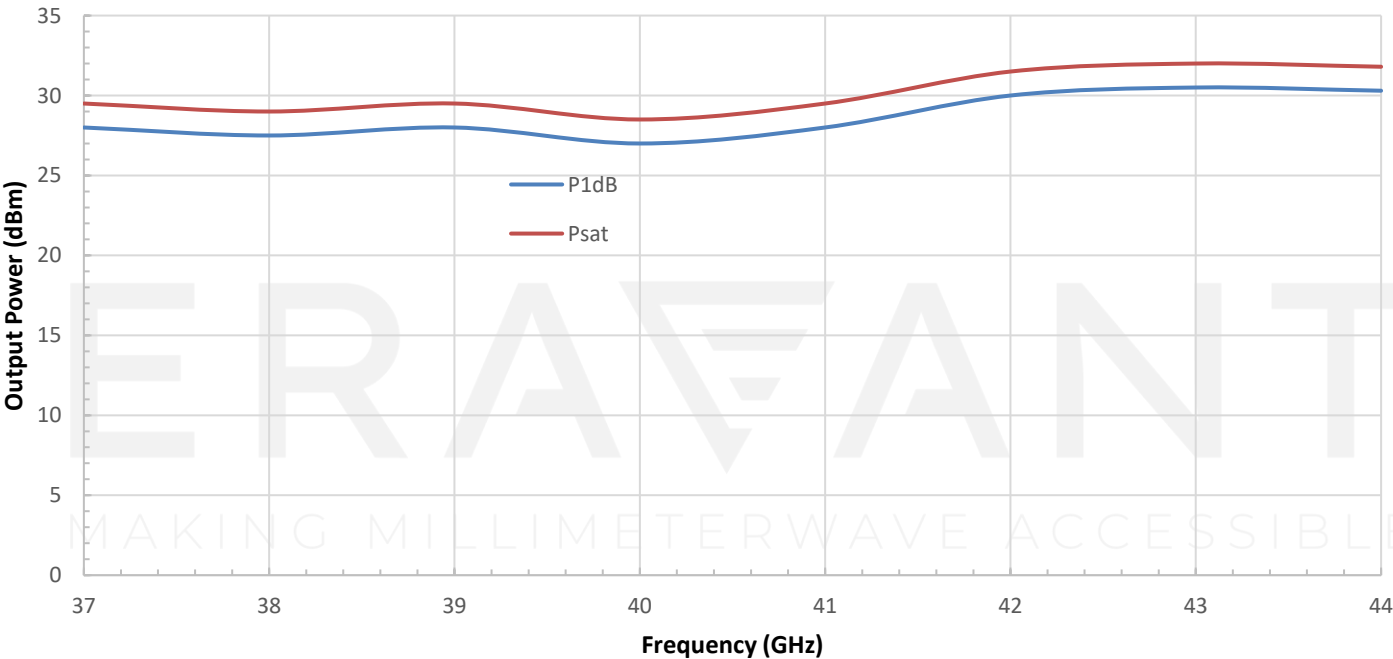
Gain vs. Frequency

Bias: +8 V_{DC}/1284 mA



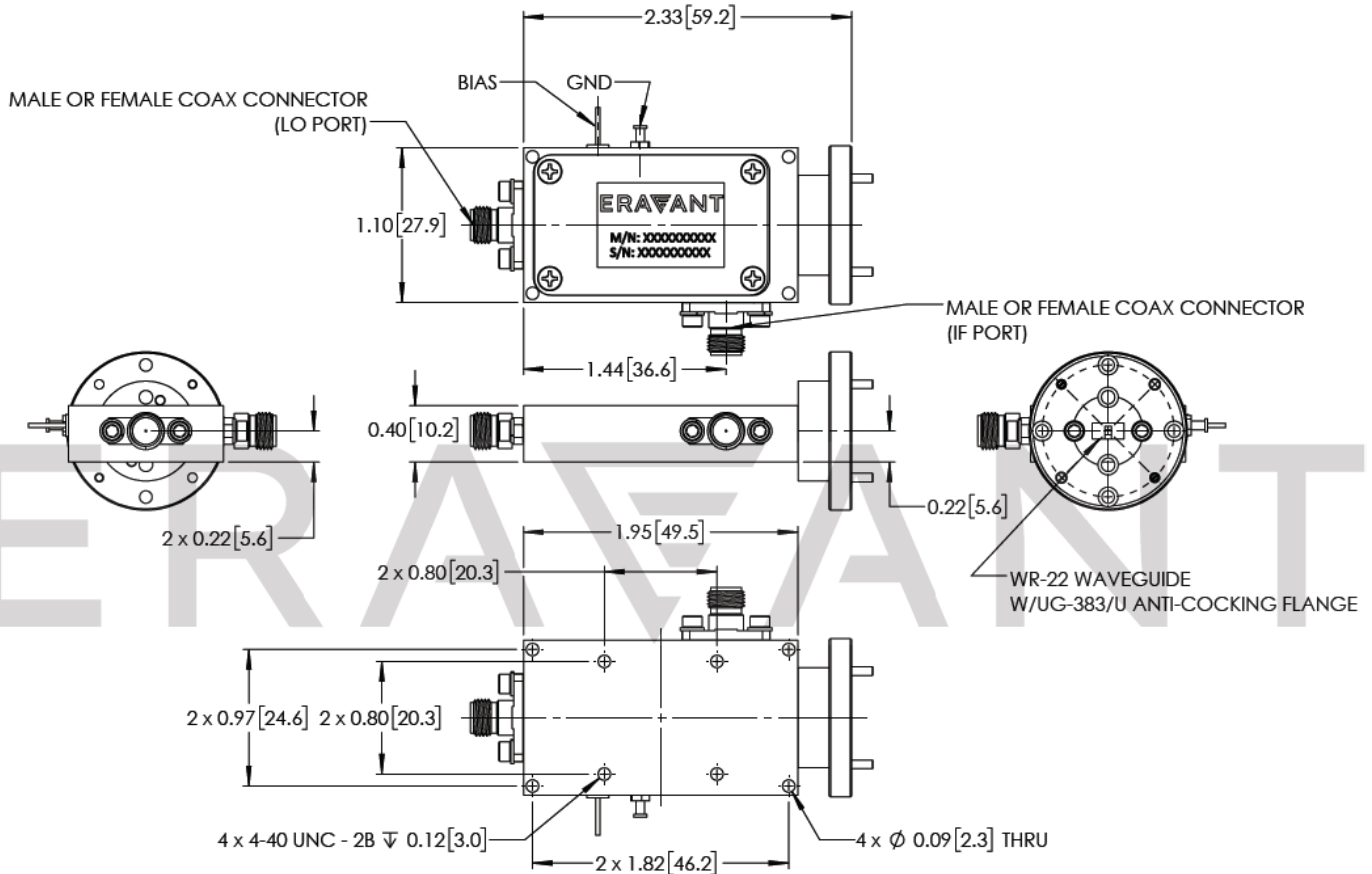
Output Power vs. Frequency

Bias: +8 V_{DC}/1284 mA



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



NOTE:

- The transmitter employs Eravant's trademarked and patent pending technology, Uni-Guide™, as its waveguide interfaces. The orientation of the input and the output waveguides can be specified through corresponding model numbers. For example, the model number for a horizontal output waveguide configuration would be SSR-4130732825-22H-SE1 instead of the default SST-4130732825-22-SE1 which indicates vertical orientation output.
- 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 IF port is DC coupled and 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