

SST-4930532622-19-SE1

WR-19 Transmitter, 47 to 52 GHz, 24 dBm P_{1dB}, 22 dB Gain

SST-4930532622-19-SE1 is a WR-19 integrated transmitter module for satellite internet applications such as Starlink. The transmitter has a typical conversion gain of 22 dB with a typical P_{1dB} of 24 dBm in the frequency range of 47 to 52 GHz. The required LO power is +0 dBm between frequencies of 11.25 and 13 GHz. The RF transmit port is a WR-19 Uni-Guide™ Waveguide with UG-383/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.



Electrical Specifications:

Parameter	Minimum	Typical	Maximum
RF Output Frequency	47 GHz		52 GHz
IF Input Frequency	DC		7 GHz
IF Input Power			+18 dBm
LO Frequency	11.25 GHz		13 GHz
LO Input Power		+0 dBm	+10 dBm
Conversion Gain		22 dB	
P _{1dB} (DSB)		+24 dBm	
P _{sat} (DSB)		+26 dBm	
Bias Voltage	+6 V _{DC}	+8 V _{DC}	+12 V _{DC}
Bias Current		2.1 A	
Specification Temperature		+25°C	
Operating Temperature	0°C		+50°C

Mechanical Specifications:

Item	Specification
RF Ports	WR-19 Uni-Guide™ Waveguide with UG-383/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 2.34" (L) X 0.40" (H)
Outline	SR-SU-A-2

ECCN

3A001.b.7

FEATURES

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

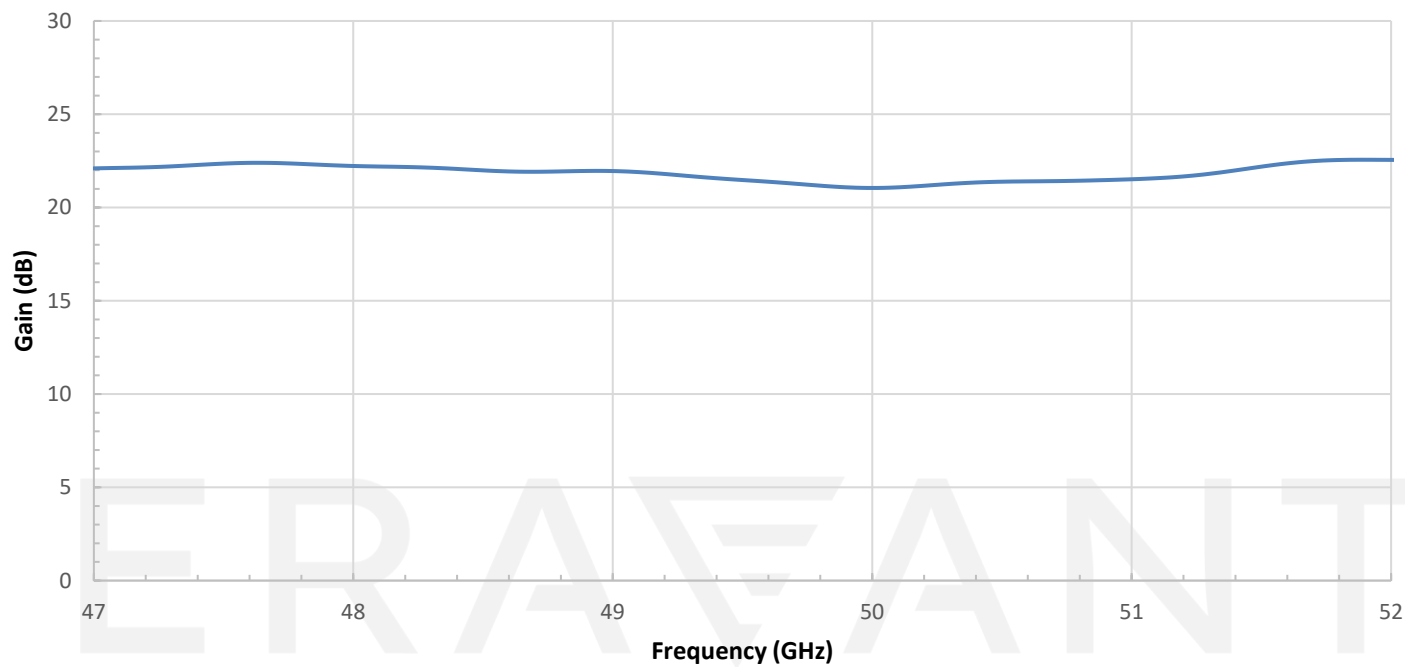
APPLICATIONS

- Starlink

SUPPLEMENTAL DETAILS

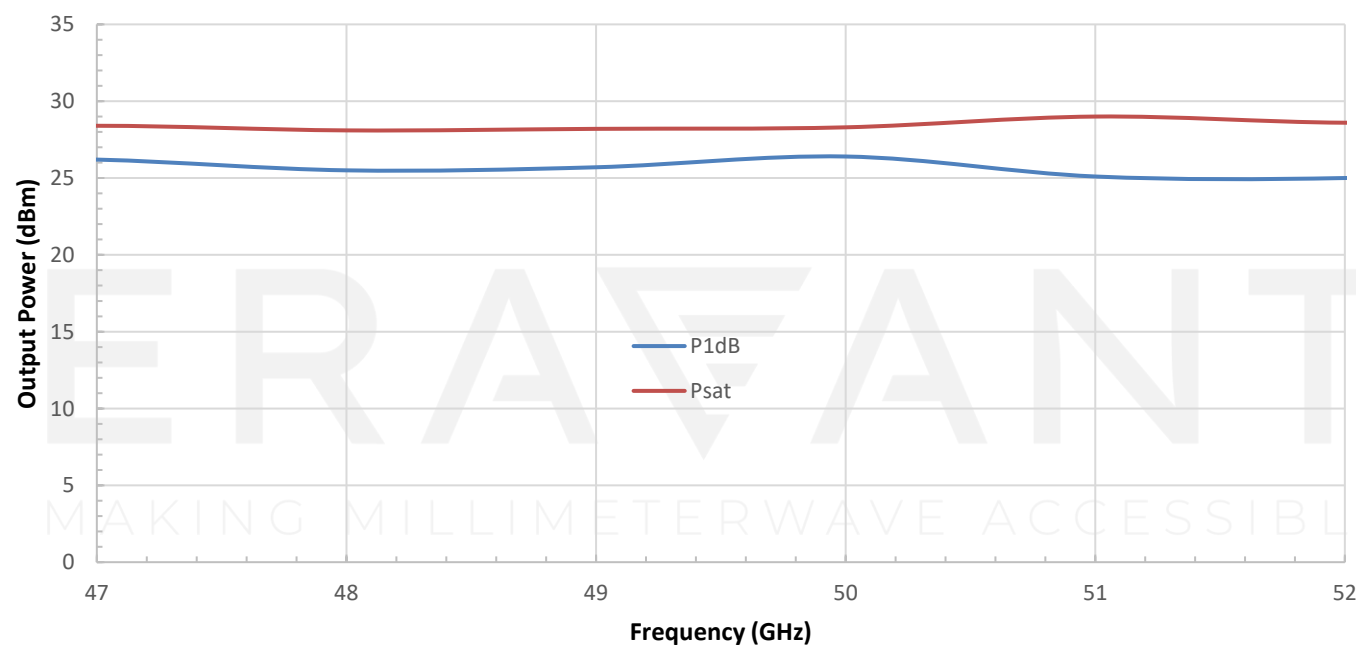
Gain and Return Loss vs. Frequency

Bias: +8 V_{DC}/2154 mA



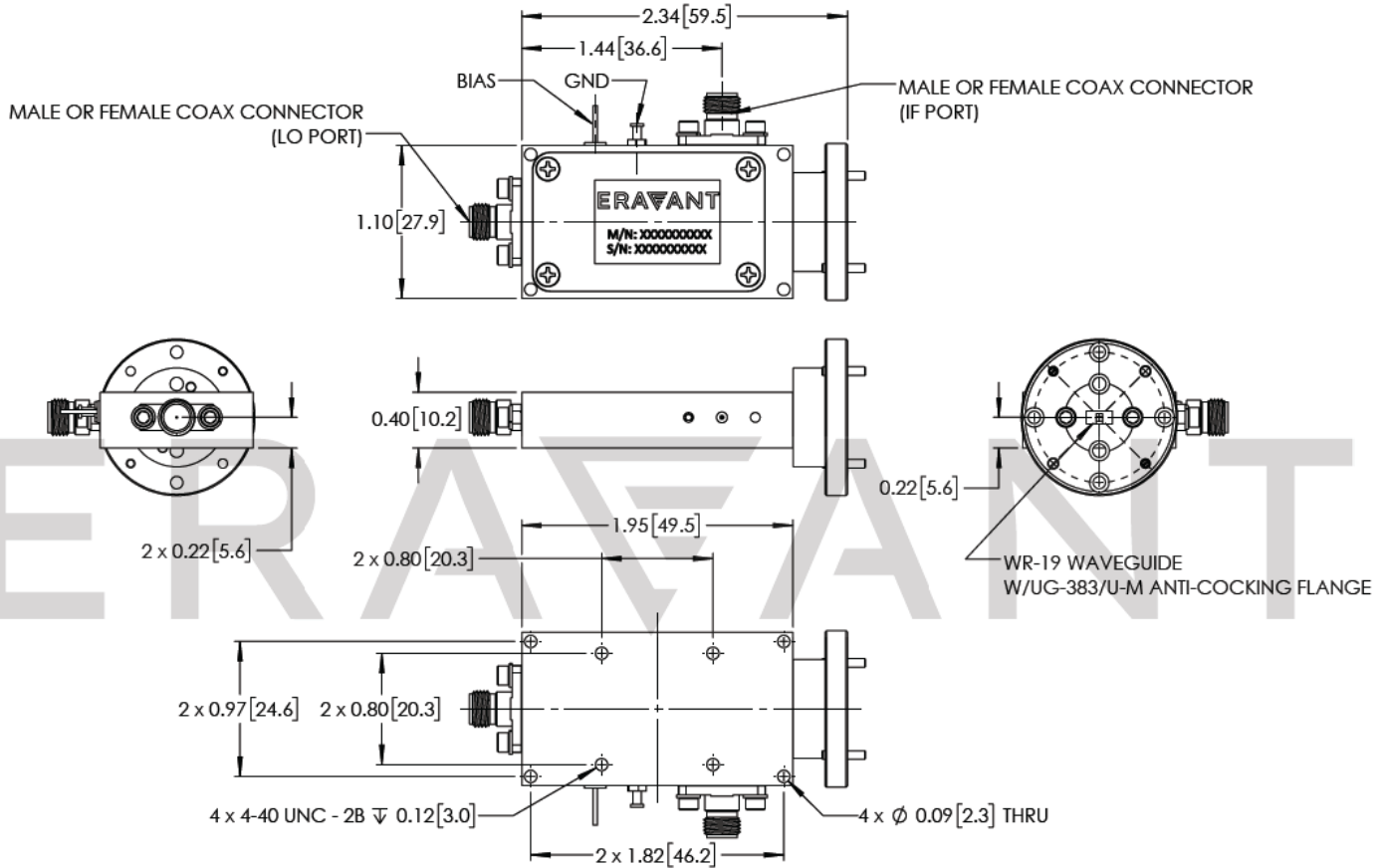
Output Power vs. Frequency

Bias: +8 V_{DC}/2154 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-4930532622-19H-SE1 instead of the default SST-4930532622-19-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 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