

Coaxial Transmitter, 24 to 42 GHz, 20 dBm P_{1dB}, 25 dB Gain

SST-3331832025-KF-S1 is a coaxial integrated transmitter module. The transmitter has a typical conversion gain of 25 dB with a typical P_{1dB} of +20 dBm in the frequency range of 24 to 42 GHz. The required LO power is 0 dBm between frequencies of 12 and 21 GHz. The input and output ports are both equipped with female 2.92 mm (K) connectors. Other port configurations, such as WR-28 waveguides are also available under different model numbers.

**Electrical Specifications:**

Parameter	Minimum	Typical	Maximum
RF Output Frequency	24 GHz		42 GHz
IF Input Frequency	DC		12 GHz
IF Input Power			+10 dBm
IF to RF Conversion Gain		25 dB	
P _{1dB}		+20 dBm	
LO Frequency	12 GHz		21 GHz
LO Input Power		0	+20 dBm
Bias Voltage	+6 V _{DC}	+8 V _{DC}	+15 V _{DC}
Bias Current		500 mA	
Specification Temperature		+25°C	
Operating Temperature	0°C		+50°C

Mechanical Specifications:

Item	Specification
RF Port (Port 3)	2.92 mm (K) Female
LO Port (Port 1)	2.92 mm (K) Female
IF Port (Port 2)	SMA
Bias	Solder Pin
Case Material	Aluminum
Finish	Gold Plated
Weight	2.0 Oz
Size	1.60" (W) X 1.50" (L) X 0.50" (H)
Outline	SR-SC-1

ECCN

EAR99

FEATURES

- High Gain
- Multiplied LO Input Frequency
- Fully Integrated Module

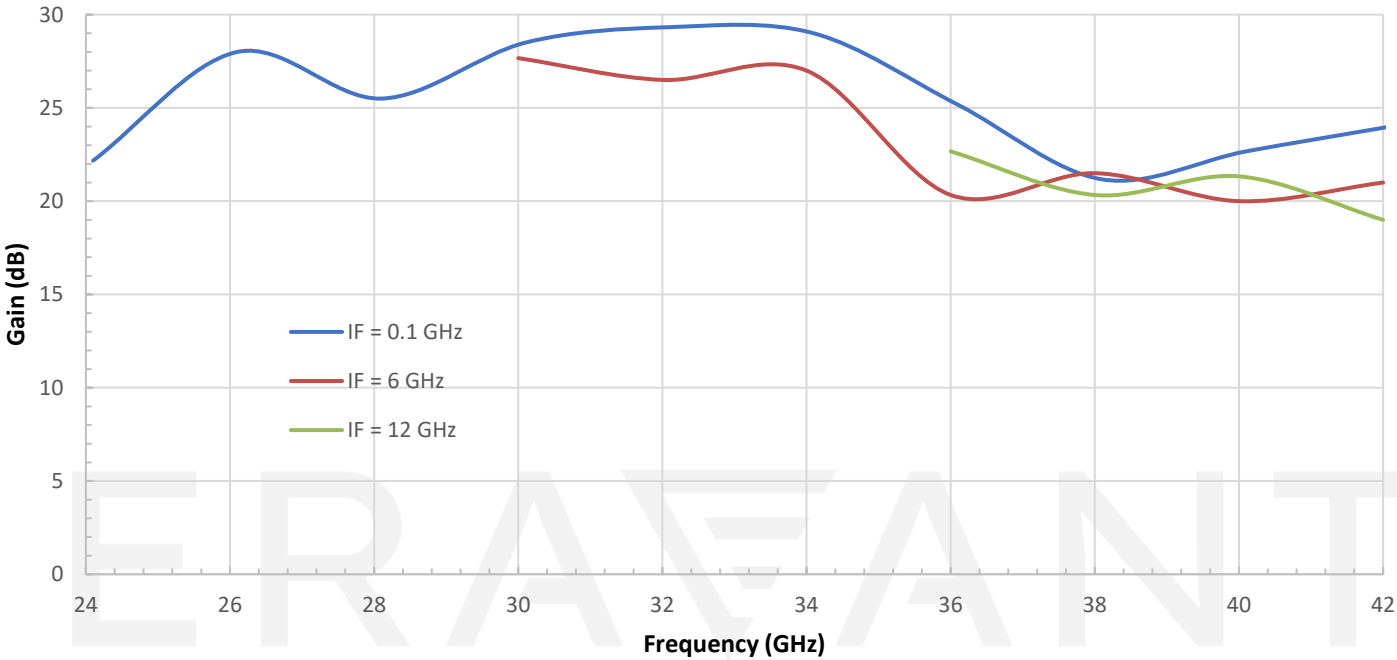
APPLICATIONS

- 5G Systems
- Radar Systems
- System Integration

SUPPLEMENTAL DETAILS

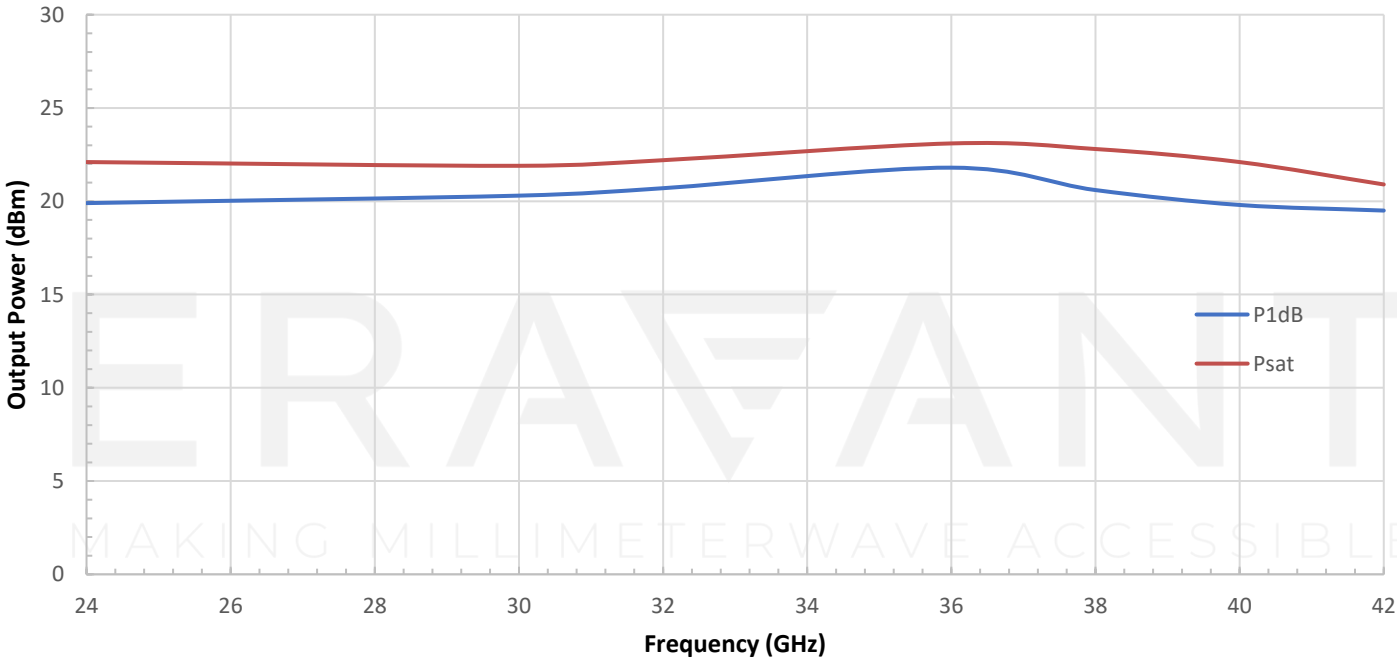
Gain vs. Output Frequency

Bias: +8 V_{DC}/495 mA



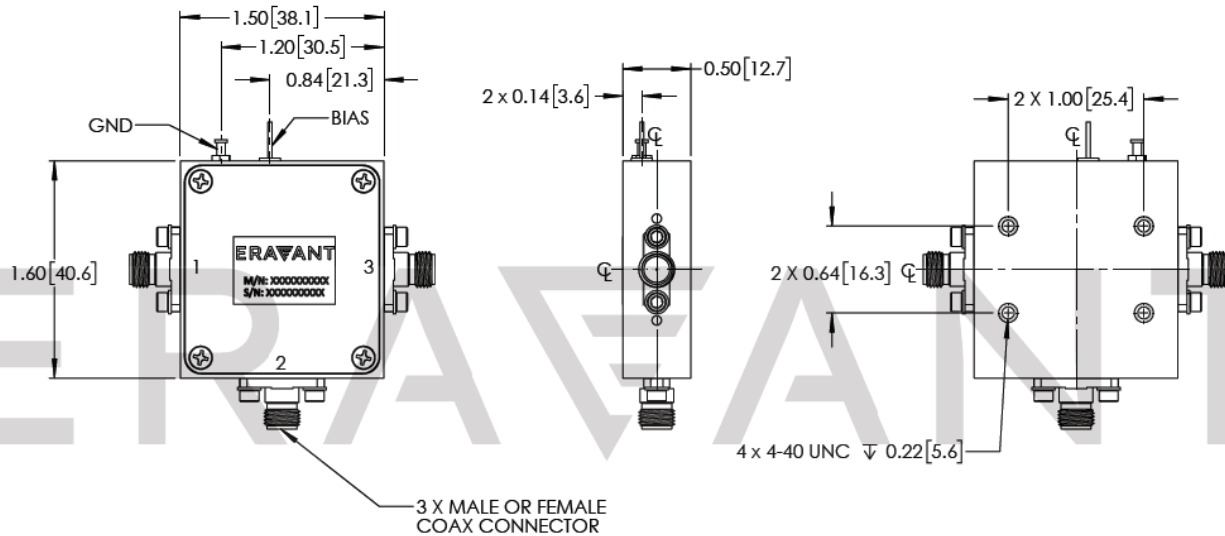
Output Power vs. Frequency

Bias: +8 V_{DC}/495 mA



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



Note:

- All data presented is collected from a sample lot. Actual data may vary unit to unit.
- All testing was performed under +25 °C case temperature.
- 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.**