

SST-3331832025-28-S1

WR-28 Transmitter, 24 to 42 GHz, 20 dBm P_{1dB}, 25 dB Gain

SST-3331832025-28-S1 is an 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 RF Receive port is WR-28 Uni-Guide™ Waveguide with UG-599/U Flange while the LO port is female 2.92mm (K) connectors. Other port configurations, are also available under different model numbers such **SST-3331832025-KF-S1**.



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 dBm	+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)	WR-28 Uni-Guide™ Waveguide with UG-599/ U Flange
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-SA

ECCN

EAR99

FEATURES

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

APPLICATIONS

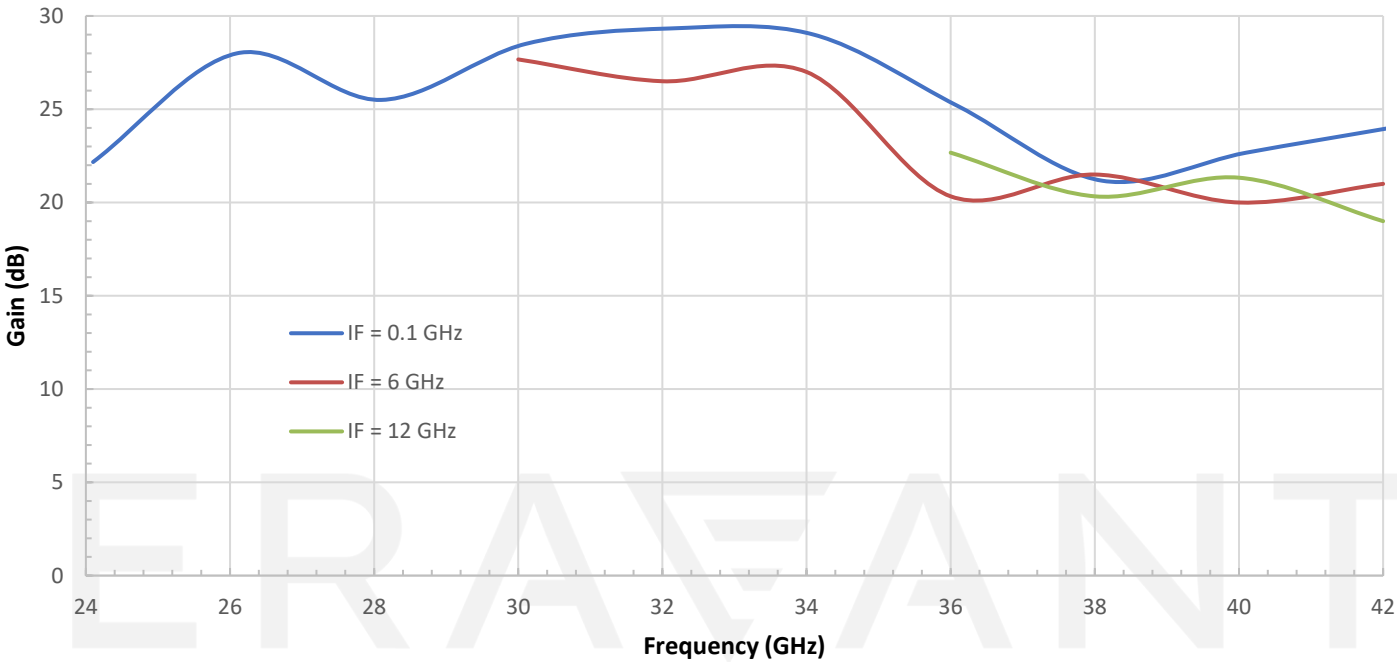
- 5G Systems
- Radar Systems

SUPPLEMENTAL DETAILS



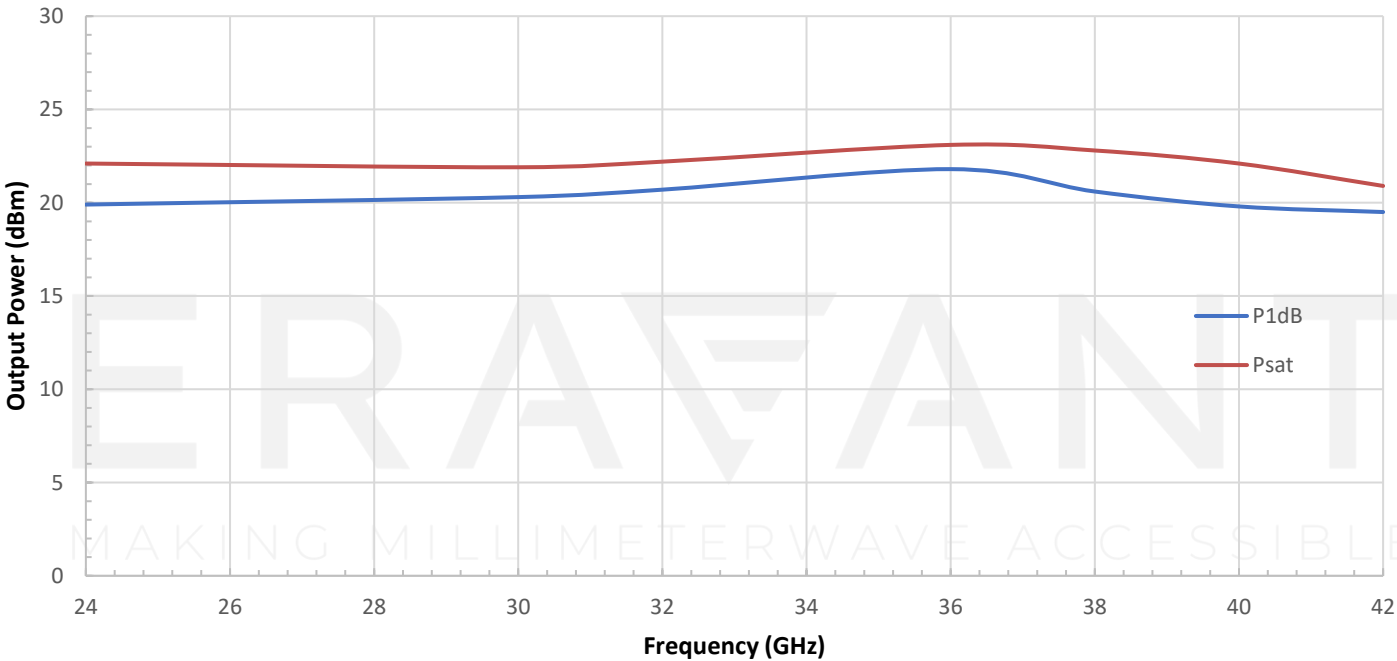
Gain vs. Output Frequency

Bias: +8 V_{DC}/495 mA



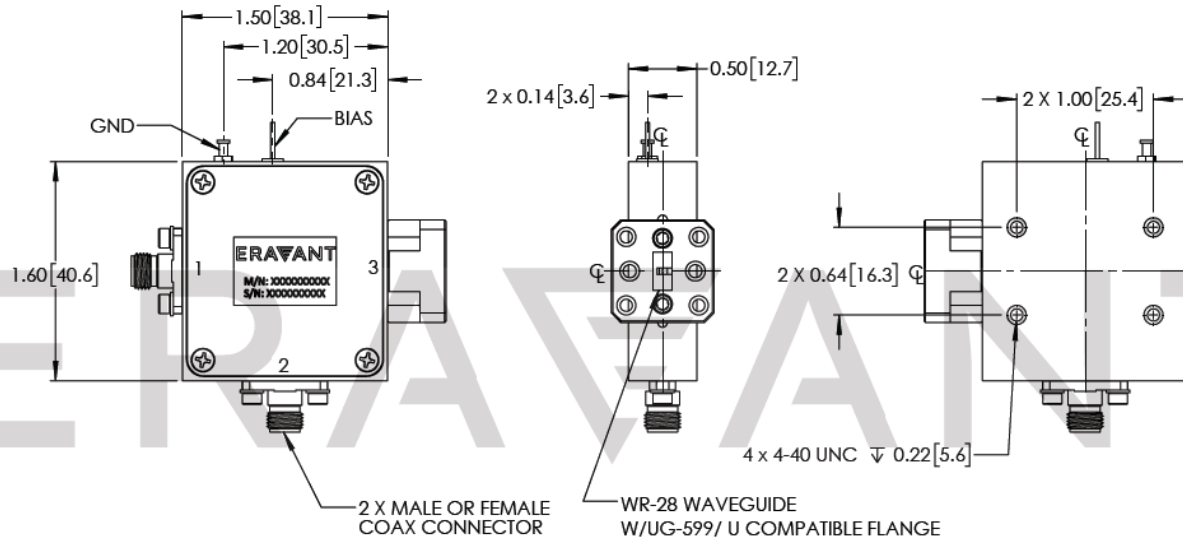
Output Power vs. Frequency

Bias: +8 V_{DC}/495 mA



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



Note:

- The transmitter employs Eravant's trademarked and patent pending technology, **Uniguide™**, 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 **SST-3331832025-28H-S1** instead of the default **SST-3331832025-28-S1** which indicates vertical orientation output.
- 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.**