

WR-28 Receiver, 32 to 38 GHz, 3 dB Noise Figure, 12 dB Gain

Description:

Model SSR-3530633012-28-SE1 is a WR-28 integrated receiver module for radar and 5G applications. The receiver has a typical conversion gain of 12 dB with a typical Noise Figure of 3 dB in the frequency range of 32 to 38 GHz. The required LO power is +5 dBm between frequencies of 7.5 and 10 GHz. The RF receive port is WR-28 Uni-Guide™ Waveguide with UG-599/U Flange while the LO and IF port is female SMA connectors. Other port configurations, are also available under different model numbers.



Features:

- Good Gain Flatness and Noise Figure
- Built in x4 LO Multiplier
- Fully Integrated Module

Applications:

- 5G Systems
- Radar Systems

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
RF Input Frequency	32 GHz		38 GHz
RF Input Power			+5 dBm
IF Output Frequency	DC		8 GHz
LO Frequency	7.5 GHz		10 GHz
LO Input Power		+5 dBm	+10 dBm
Conversion Gain		12 dB	
Noise Figure		3 dB	
Input P _{1dB}		-18 dBm	
Bias Voltage	+6 V _{DC}	+8 V _{DC}	+15 V _{DC}
Bias Current		300 mA	
Specification Temperature		+25 °C	
Operating Temperature	0 °C		+50 °C

Mechanical Specifications:

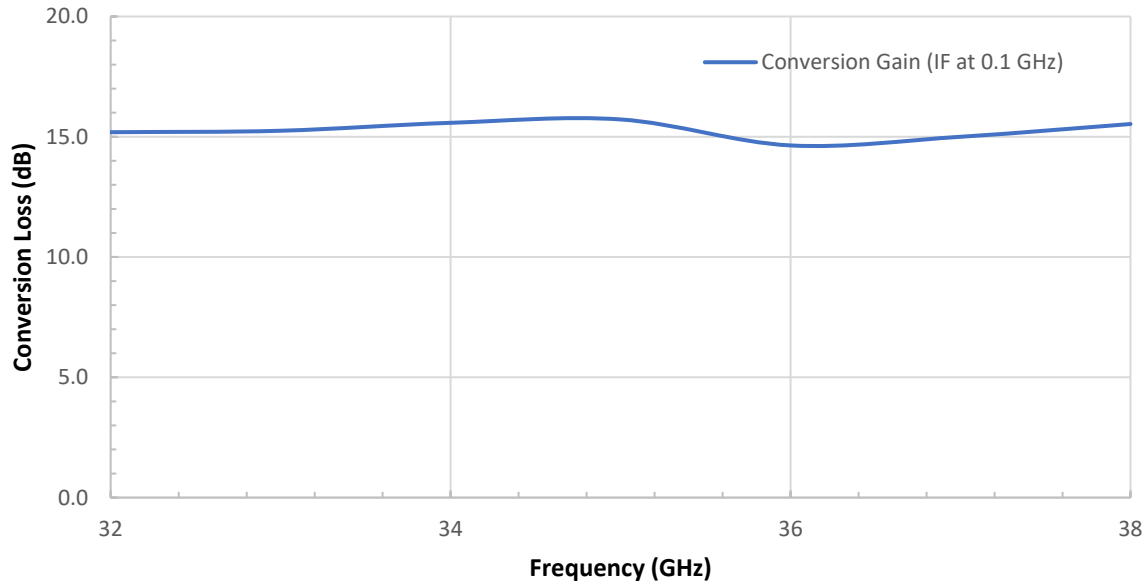
Item	Specification
RF Port	WR-28 Uni-Guide™ Waveguide with UG-599/U Flange
LO Port	SMA (F)
IF Port	SMA (F)
Bias	Solder Pin
Case Material	Aluminum
Finish	Gold Plated
Weight	2.0 Oz
Size	1.10" (W) X 2.38" (L) X 0.40" (H)
Outline	SR-SA-3

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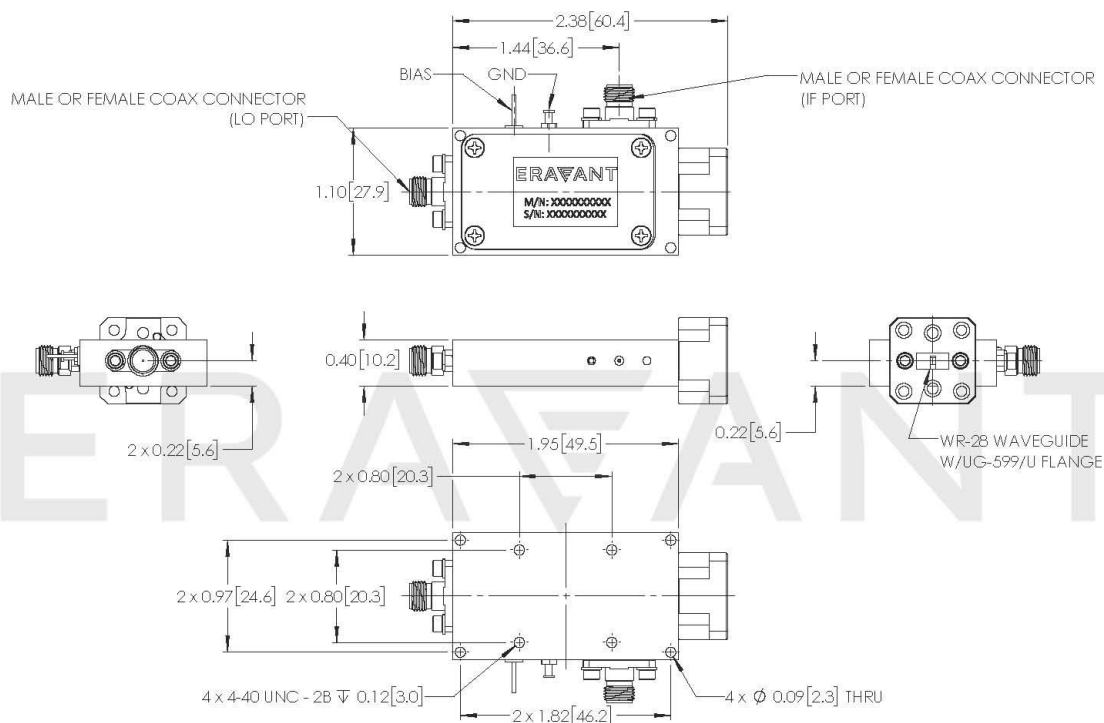
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Conversion Gain vs. Frequency

RF: -20 dBm; LO: 5 dBm



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



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Note:

- The receiver 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-3530633012-28H-SE1** instead of the default **SSR-3530633012-28-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.
- 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.**

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