

## WR-12 Receiver, 60 to 90 GHz, 15 dB Conversion Loss

### Description:

**Model SSR-1215N15-SE1** is a full WR-12 integrated receiver module. The receiver has a typical conversion loss of 15 dB with a typical Noise Figure of 15 dB in the frequency range of 60 to 90 GHz. The required LO power is +3 dBm between frequencies of 10 and 15 GHz. The RF receive port is WR-12 Waveguide with UG-387/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.



### Features:

- Built in x6 LO Multiplier
- Fully Integrated Module

### Applications:

- Communication Systems

### Electrical Specifications:

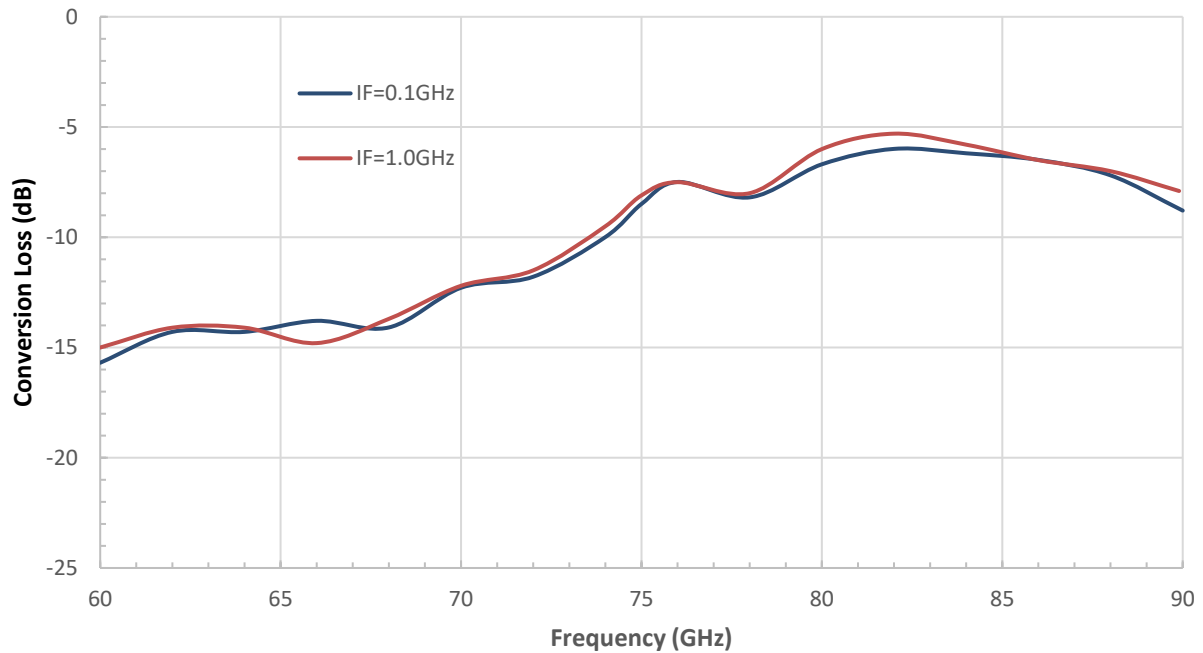
Parameter	Minimum	Typical	Maximum
RF Input Frequency	60 GHz		90 GHz
RF Input Power			+5 dBm
IF Output Frequency	DC	1 GHz	12 GHz
LO Frequency	10 GHz		15 GHz
LO Input Power		+3 dBm	+20 dBm
Conversion Loss		15 dB	
Noise Figure		15 dB	
Input P <sub>1dB</sub>		-5 dBm	
Bias Voltage	+6 V <sub>DC</sub>	+8 V <sub>DC</sub>	+15 V <sub>DC</sub>
Bias Current		200 mA	
Specification Temperature		+25 °C	
Operating Temperature	0 °C		+50 °C

### Mechanical Specifications:

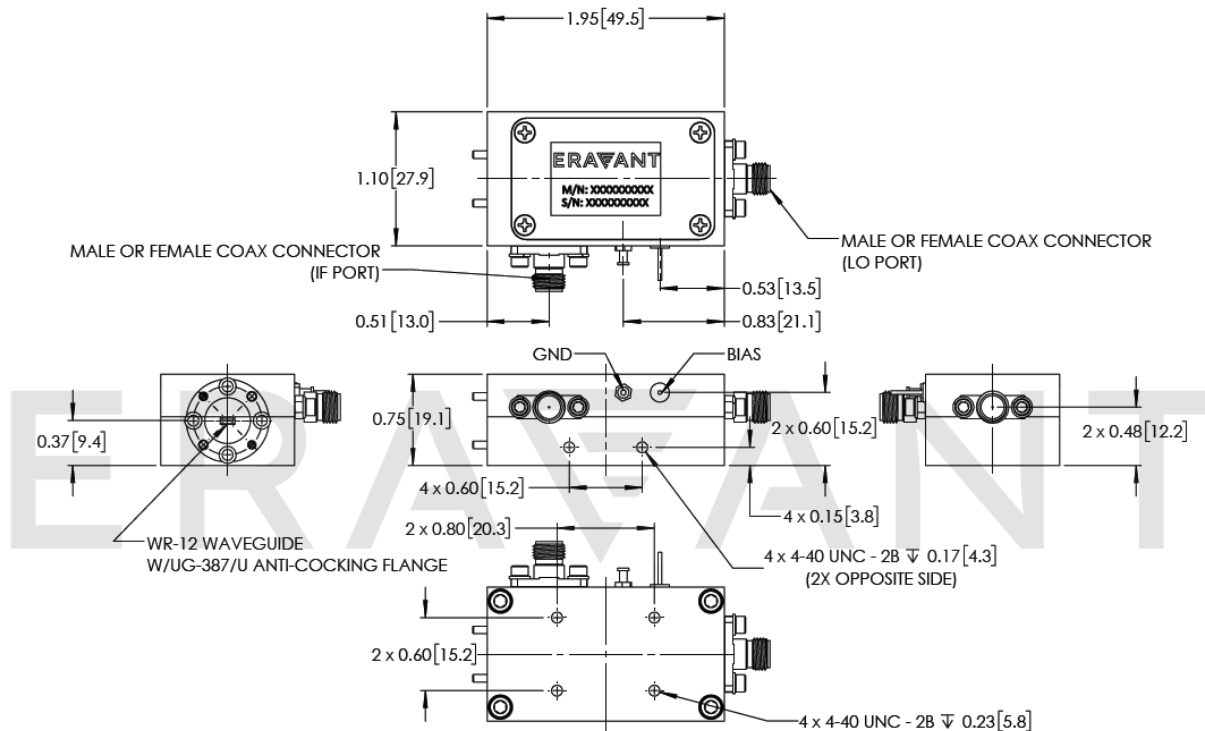
Item	Specification
RF Port	WR-12 Waveguide with UG-387/U-M Anti-Cocking Flange
LO Port	SMA (F)
IF Port	SMA (F)
Bias	Solder Pin
Case Material	Aluminum
Finish	Gold Plated
Weight	2.0 Oz
Size	1.10" (W) X 1.95" (L) X 0.75" (H)
Outline	SR-SE-A-2

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## Conversion Loss vs. Frequency



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



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### Note:

- 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,  $8.0 \pm 0.15$  inch-pounds ( $0.90 \pm 0.02$  Nm), should be applied. **Eravant torque wrench, model SCH-08008-S1, is highly recommended.**

