

WR-15 Receiver, 50 to 75 GHz, 10 dB Conversion Loss

Description:

Model SSR-1510N10-SE1 is a full WR-15 integrated receiver module. The receiver has a typical conversion gain of 10 dB with a typical Noise Figure of 10 dB in the frequency range of 50 to 75 GHz. The required LO power is +3 dBm between frequencies of 12.5 and 18.75 GHz. The RF receive port is WR-15 Waveguide with UG-385/U 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 x4 LO Multiplier
- Fully Integrated Module

Applications:

- Communication Systems

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
RF Input Frequency	50 GHz		75 GHz
RF Input Power			+5 dBm
IF Output Frequency	DC	1 GHz	25 GHz
LO Frequency	12.5 GHz		18.75 GHz
LO Input Power		+3 dBm	+20 dBm
Conversion Loss		10 dB	
Noise Figure		10 dB	
Input P _{1dB}		0 dBm	
Bias Voltage	+6 V _{DC}	+8 V _{DC}	+15 V _{DC}
Bias Current		220 mA	
Specification Temperature		+25 °C	
Operating Temperature	0 °C		+50 °C

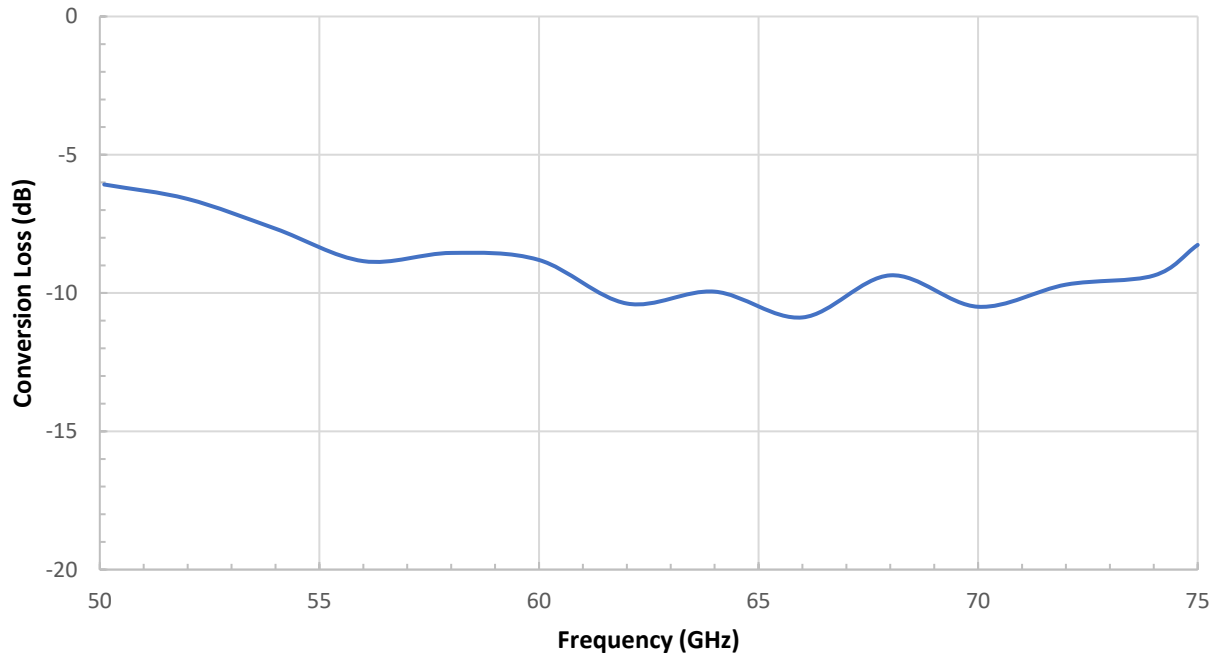
Mechanical Specifications:

Item	Specification
RF Port	WR-15 Waveguide with UG-385/U 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-SV-A-1

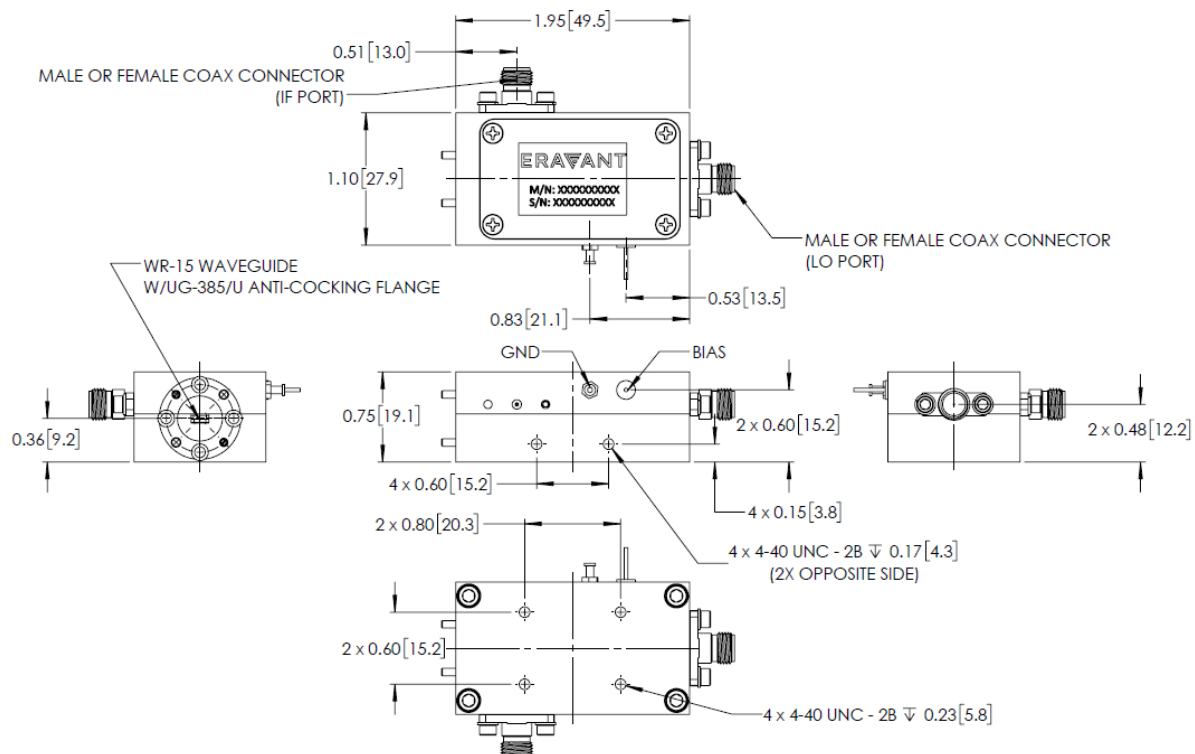
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Conversion Loss vs. Frequency

RF: -20 dBm



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



www.eravant.com | 501 Amapola Ave, Torrance, CA 90501
 Phone: 424-757-0168 | Fax: 424-757-0188 | Email: support@eravant.com



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

