SSR-7931537025-12-S1

Advanced

E-Band Receiver, 71 to 86 GHz, X6 LO, DC to 12 GHz IF

Description:

Model SSR-7931537025-12-S1 is an E-Band integrated receiver module. The receiver module has a typical conversion gain of 25 dB and noise figure of 7 dB in the frequency range of 71 to 86 GHz and an IF output frequency range of DC to 12 GHz. The receiver has a built-in X6 multiplier, which requires the input LO power and frequency range of +10 dBm and 11.8 to 14.4 GHz, respectively. The LO and IF port are both equipped with female SMA connectors and the RF port is with a WR-12 waveguide with UG-387/U flange.

Features:

- Compact Size
- Broad Operation Bandwidth
- Fully Integrated Module

Applications:

- 5G Systems
- Radar Systems
- Communication Systems

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
RF Input Frequency	71 GHz		86 GHz
RF Input Power		-40 dBm	
Noise Figure		7 dB	
Damage RF Power			-30 dBm
IF Output Frequency	DC		12 GHz
RF to IF Conversion Gain		25 dB	
LO Input Frequency	11.8 GHz		14.4 GHz
LO Input Power		+10 dBm	+15 dBm
DC Bias Voltage		+8 V_{DC}	+15 V_{DC}
DC Bias Current		250 mA	
Input Return Loss		10 dB	
Specification Temperature		+ 25 °C	
Operating Temperature	0 °C		+ 50 °C

Mechanical Specifications:

Item	Specification
RF Port	WR-12 Waveguide with UG-387/U Flange
IF Port & LO Port	SMA (F) & SMA (F)
Bias Port	Solder Pin
Case	Aluminum
Weight	2.0 Oz
Finishing	Gold Plated
Size	1.10” (W) X 1.80” (L) X 0.50” (H)
Outline	SR-SE

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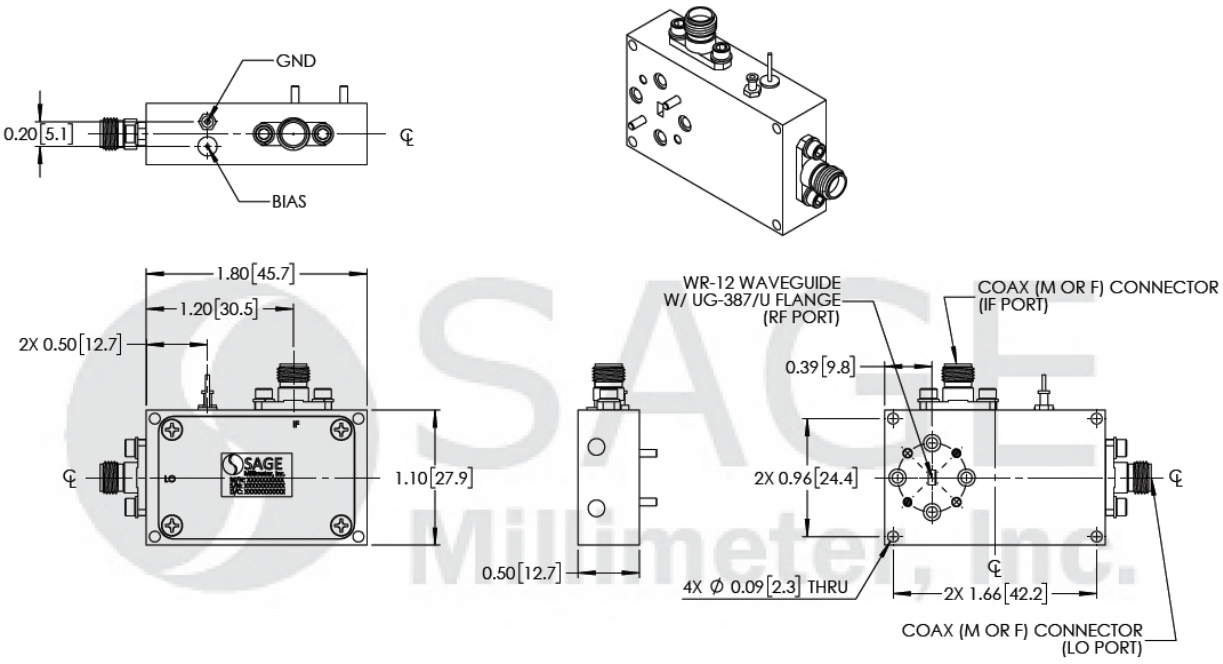
Mechanical Outline: (Unless otherwise specified, all dimensions are in inches [millimeters])



Note:

- SAGE Millimeter, Inc. 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.
- Any foreign objects in the waveguide will cause performance degradation and possible device damage.
- The case temperature of the device shall never exceed +50˚C. Use proper heatsink or fan if necessary.

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