



## W-Band Receiver, 90 to 96 GHz, X8 LO, 6 dB NF, 30 dB Gain

### Description:

**Model SSR-9330636030-10-M1** is a W-Band receiver. The receiver has a typical conversion gain of 30 dB with a typical RF input power of -60 dBm in the frequency range of 90 to 96 GHz and a IF output frequency range of DC to 6 GHz. The receiver has a built in X8 multiplier, which requires the typical input LO power and frequency of +5 dBm and 11.75 GHz, respectively. The LO and IF port are both equipped with female SMA connectors and the RF port is a WR-10 waveguide with a UG-387/U-M flange.



### Features:

- Compact Size
- Low Noise Figure
- Fully Integrated Module

### Applications:

- Radar Systems
- Communication Systems
- Passive Camera Systems

### Electrical Specifications:

Parameter	Minimum	Typical	Maximum
RF Input Frequency	90 GHz		96 GHz
RF Input Power		-60 dBm	-24 dBm
Noise Figure		6 dB	
IF Output Frequency	DC		6 GHz
RF to IF Conversion Gain		30 dB	
LO Frequency	11.25 GHz		12.00 GHz
LO Input Power	0 dBm	+5 dBm	+10 dBm
LO DC Voltage Supply	+5 V <sub>DC</sub>	+6 V <sub>DC</sub>	+12 V <sub>DC</sub>
LO Current Supply		400 mA	
Specification Temperature		+ 25 °C	
Operating Temperature	0 °C		+ 50 °C

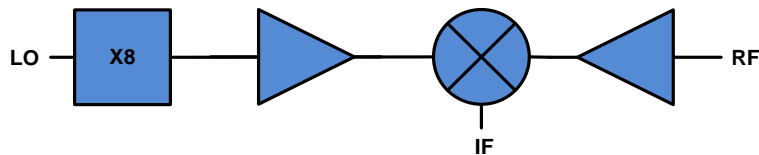
### Mechanical Specifications:

Item	Specification
RF Port	WR-10 Waveguide with UG387/U-M Flange
RX IF Port	SMA(F)
LO Port	SMA(F)
Bias	Solder Pin
Housing	Aluminum
Weight	2 Oz
Finishing	Gold Plated
Size	1.1" (W) X 1.8" (L) X 0.5" (H)
Outline	SC-WC

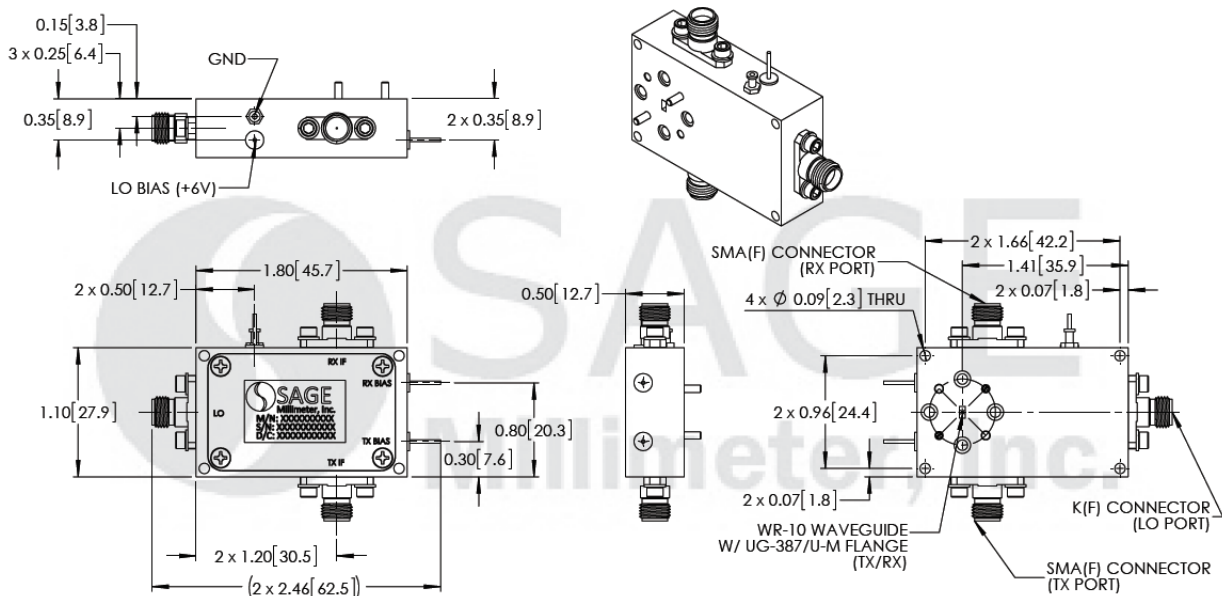


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### Block Diagram:



### 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 number.

### 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 into 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.