



K-Band Receiver, 21.0 to 27.0 GHz

Description:

Model SSR-2430630060-42-S1 is a K-Band receiver. The receiver has a typical conversion gain of 3 dB with a typical RF input P-1 dB of -5 dBm in the frequency range of 21.0 to 27.0 GHz and a IF output frequency range of DC to 4.0 GHz. The required LO power and frequency range are +0 dBm and 12.0 GHz . The LO and IF port are both equipped with female SMA connectors and the RF port is a WR-42 waveguide with a UG595/U flange. K(F) RF port option is available under a different model number.



Features:

- Compact Size
- Subharmonically Pumped Mixer
- Fully Integrated Module

Applications:

- Radar Systems
- Communication Systems
- Radio Systems

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
RF Input Frequency	21 GHz		27 GHz
RF Input P ₋₁ dB		-5 dBm	
Noise Figure		4.0 dB	6.0 dB
IF Output Frequency	DC		4.0 GHz
RF to IF Conversion Gain	0 dB	3 dB	
2LO to RF Isolation		35 dB	
2LO to IF Isolation		35 dB	
LO Frequency		12.0 GHz	
LO Input Power	-4 dBm	0 dBm	+13 dBm
Bias Voltage	+6 V _{DC}	+10 V _{DC}	+15 V _{DC}
Bias Current		170 mA	
Specification Temperature		+25 °C	
Operating Temperature	-25 °C		+65 °C

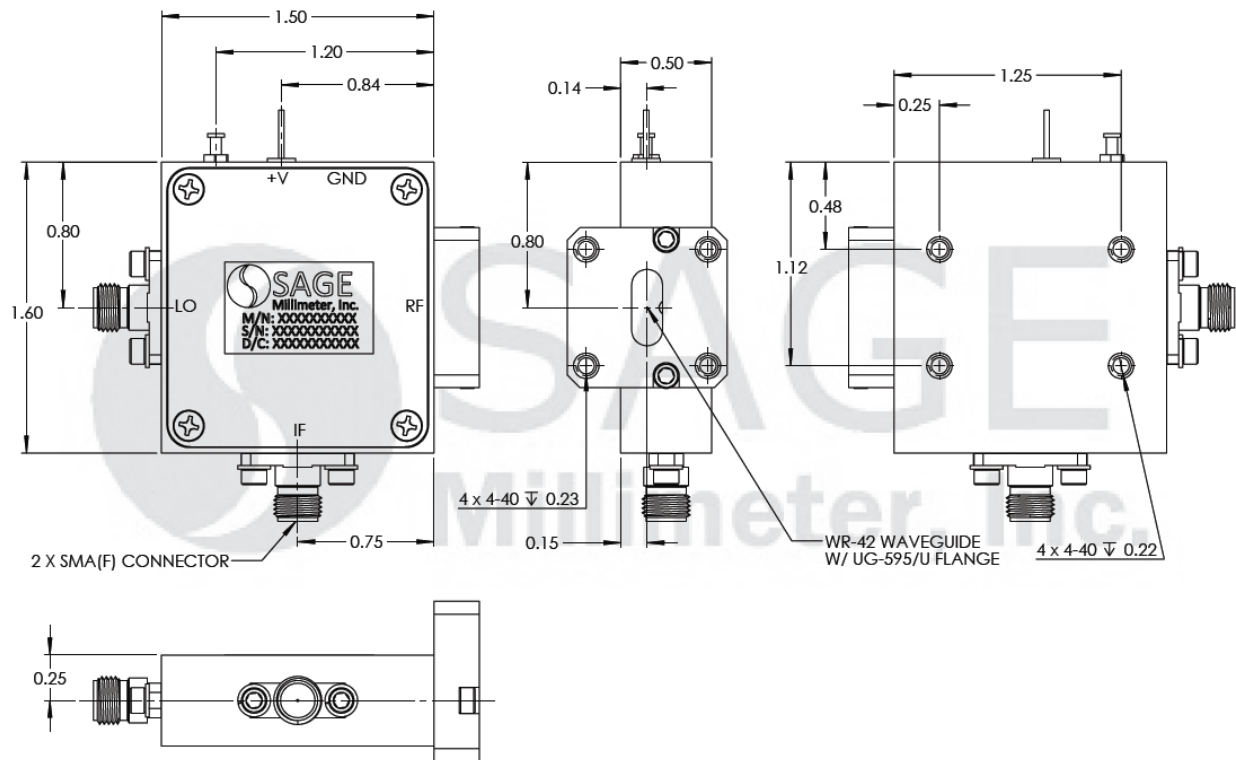
Mechanical Specifications:

Item	Specification
RF Port	WR-42 Waveguide with UG595/U Flange
IF and LO Port	SMA (F) and SMA (F)
Bias	Solder Pin
Size	1.60" (W) X 1.50" (L) X 0.50" (H)
Weight	2.0 Oz
Finish	Gold Plated
Outline	ST-SK



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



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 +85°C. Use proper Heatsink or fan if necessary.