泰莱微波
Talent Microwave

Suzhou Talent Microwave,Inc
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G-Band Subharmonic Mixer

RF:140-220GHz/LO:70-110GHz/IF:DC-40GHz Model: TLHM-140220-0240-05

TLHM-140220-0240-05 is a G-Band Subharmonic mixer. The mixer supports the full waveguide band operation for both LO frequency from 70 to 110 GHz and RF frequency from 140 to 220 GHz with an extremely broad IF output from DC to 40GHz. The mixer offers a conversion loss of 12 dB typical and LO input power of 5 dBm typical. The W-band,X6 multiplier of Talent model TMAM-070110-0608-10 can be used as the LO driver for this mixer.

Features:

- RF Frequency range: 140-220GHz
- LO Frequency range: 70-110GHz
- IF Frequency range: DC-40GHz
- Low LO power requirement
- Subharmonic mixer
- Suggested LO drive model: TMAM-070110-0608-10

Applications:

- Radar Systems
- Communication Systems
- Test Equipment

电气特性 Electrical Characteristics:

参数 Parameter	Min	Typ	Max	单位 Units
RF频率 RF Frequency	140		220	GHz
LO频率 LO Frequency	70		110	GHz
IF频率 IF Frequency	DC		40	GHz
LO驱动功率 LO-Input power	4	5	8	dBm
RF 输入驻波 RF Input VSWR		3		:1
变频损耗 Conversion Loss		12		dB

机械特性 Mechanical Specifications:

参数 Parameter	指标 Value	单位 Units
RF 接口 RF Connector	WR-5.1/UG-387/U	
LO 接口 LO Connector	WR-10/UG-387/U	
IF 接口 IF Connector	2.4mm Female	
尺寸 Size	Model A: 29*28*20 Model B: 25*24*20	mm

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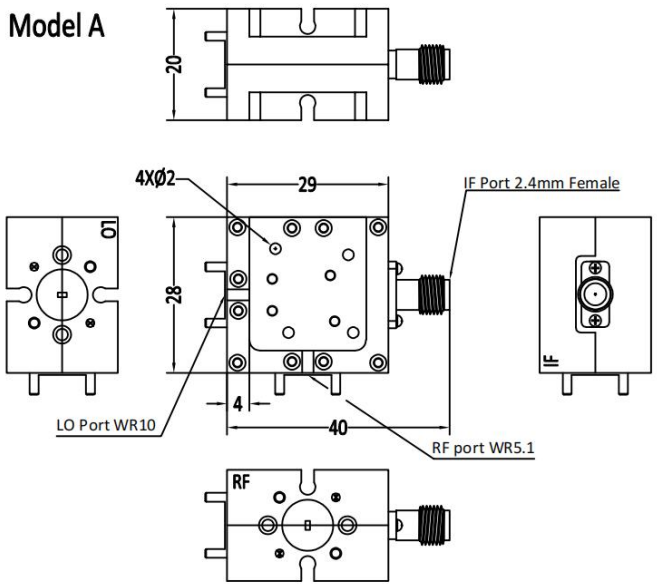
绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
RF 功率 RF Input Power	0 dBm
LO功率 LO Input Power	+8 dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V

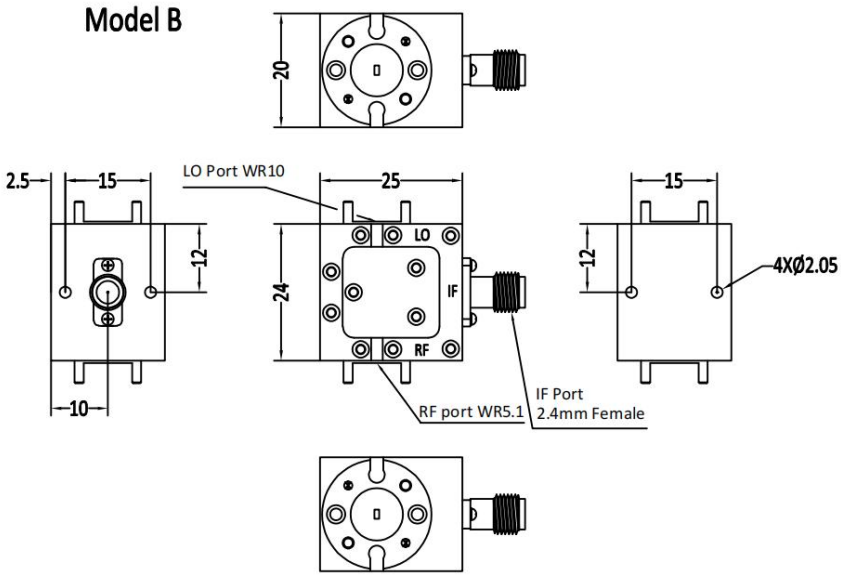
外形图 Outline Drawing:

Unit:mm; Tolerance:±0.1mm

Model A



Model B



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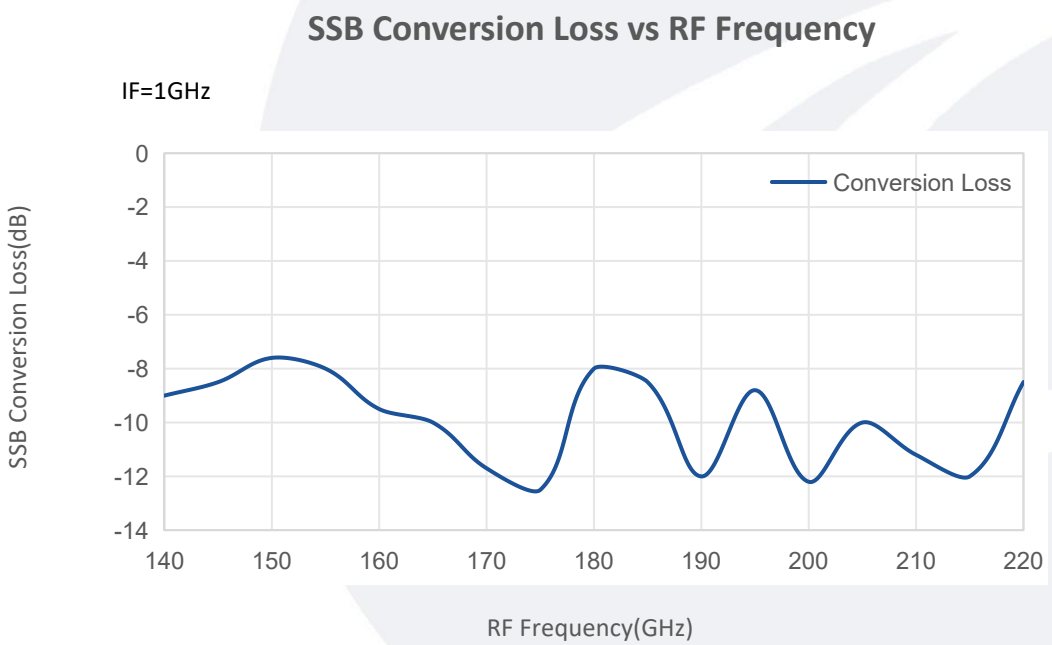
温度环境 Environmental Conditions:

参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	0		+45	℃
存储温度 Non-operating Temperature	-25		+65	℃
相对湿度 Relative humidity		95		%
海拔 Altitude	10,000			feet
震动 Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
冲击 Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

订货信息 Ordering Information:

标准型号 Base Number	描述 Description	版本号 Revision
TLHM-140220-0240-05-A	G-Band Subharmonic Mixer, 29*28*20 mm RF:140-220GHz,LO:70-110GHz,IF:DC-40GHz	Rev.1.1
TLHM-140220-0240-05-B	G-Band Subharmonic Mixer, 25*24*20mm RF:140-220GHz,LO:70-110GHz,IF:DC-40GHz	Rev.1.1

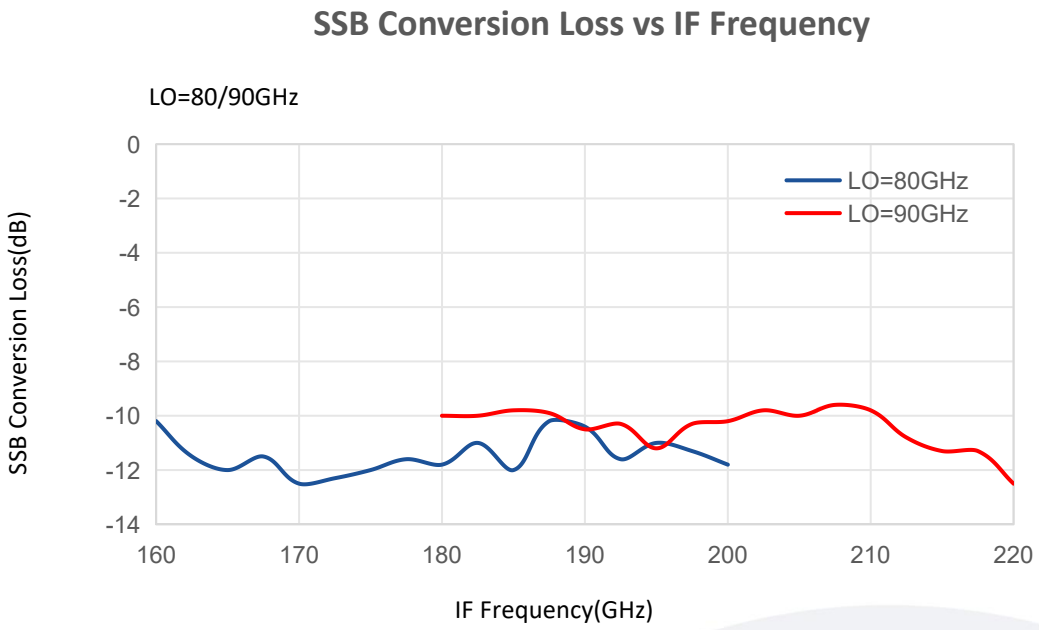
典型曲线 Typical Performance Data:



Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

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