泰莱微波
Talent Microwave

Suzhou Talent Microwave,Inc
sales@talentmw.com
www.talentmw.com

F-Band Subharmonic Mixer

RF:90-140GHz/LO:45-70GHz/IF:DC-10GHz Model: TLHM-90140-0225-08

TLHM-90140-0225-08 is a F-Band subharmonic mixer. The mixer supports the full waveguide band operation for LO frequency from 45 to 70 GHz and RF frequency from 90 to 140 GHz with an extremely broad IF output from DC to 10 GHz. The mixer offers a conversion loss of 9 dB typical and LO input power of 8 dBm typical. The X4 multiplier of Talent model TMAM-045070-0407-15 can be used as the LO driver for this mixer.

Features:

- RF Frequency range: 90-140GHz
- LO Frequency range: 45-70GHz
- IF Frequency range: DC-10GHz
- Low LO Power Requirement
- Subharmonic mixer
- Suggested LO drive model: TMAM-045070-0407-15

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	90		140	GHz
LO频率 LO Frequency	45		70	GHz
IF频率 IF Frequency	DC		10	GHz
倍频次数 Multiply Factor		2		
LO驱动功率 LO-Input power		8		dBm
变频损耗 Conversion Loss		9		dB

机械特性 Mechanical Specifications:

参数 Parameter	指标 Value	单位 Units
RF 接口 RF Connector	WR-08/UG-387/U	
LO 接口 LO Connector	WR-15/UG-385/U	
IF 接口 IF Connector	SMA Female	
尺寸 Size	24*20*30	mm

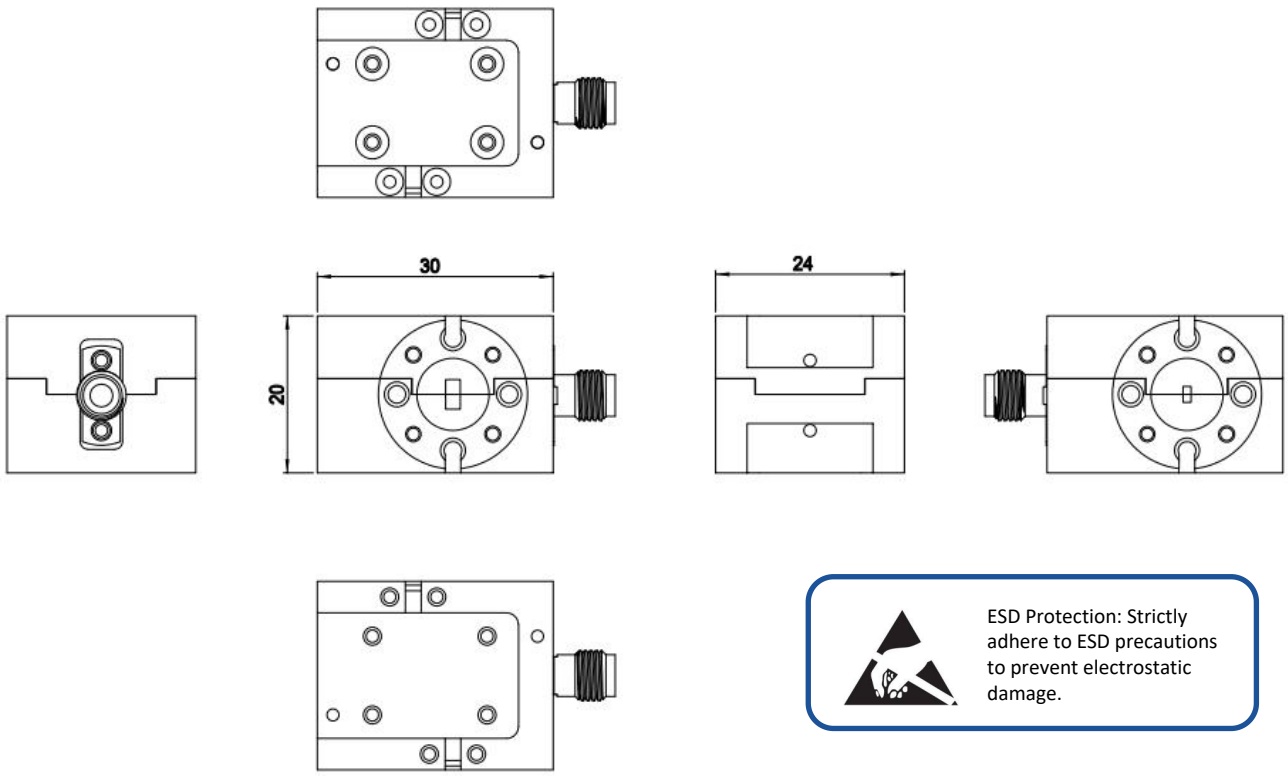
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绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
RF功率 RF Input Power	0 dBm
LO功率 LO Input Power	+15 dBm
IF功率 IF Input Power	0 dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V

外形图 Outline Drawing:

Unit:mm; Tolerance:±0.1mm



ESD Protection: Strictly adhere to ESD precautions to prevent electrostatic damage.

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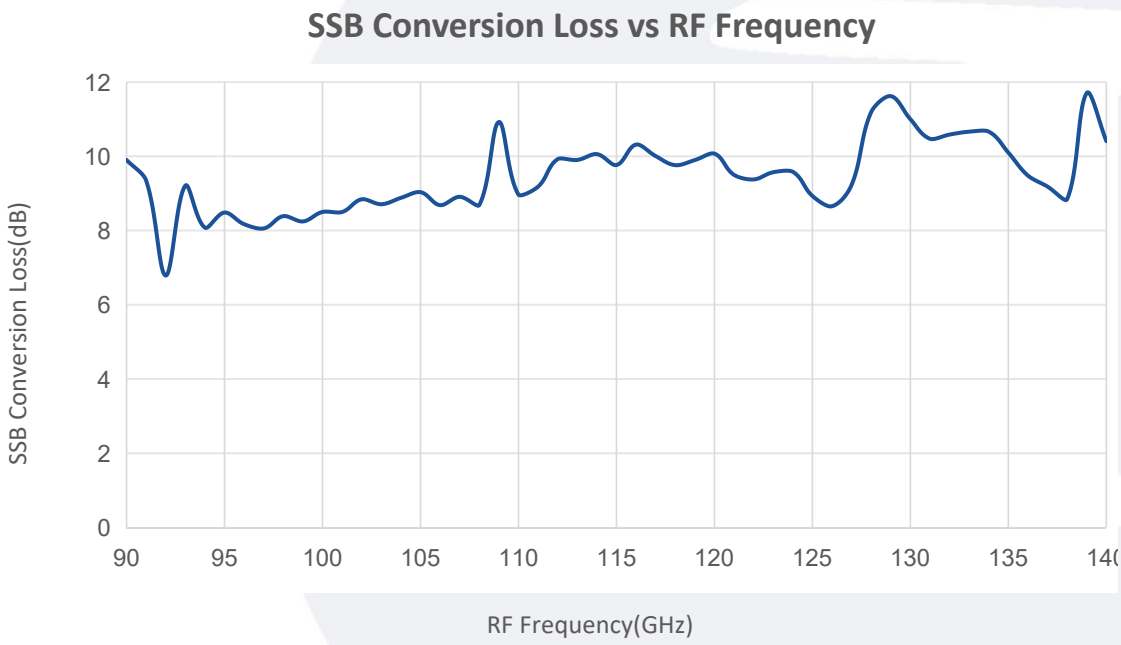
温度环境 Environmental Conditions:

参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	-10		+65	℃
存储温度 Non-operating Temperature	-45		+85	℃
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-90140-0225-08	F-Band Subharmonic Mixer RF:90-140GHz,LO:45-70GHz,IF:DC-10GHz	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.