泰莱微波
Talent Microwave

Suzhou Talent Microwave,Inc
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V-Band Balance Mixer

RF:50-75 GHz/LO:50-75 GHz/IF:DC-20 GHz Model: TLBM-050075-10-15

TLBM-050075-10-15 is a V-Band Balance mixer. The mixer supports the full waveguide band operation for both LO and RF frequency from 50 to 75 GHz with an extremely broad IF output from DC to 20 GHz. The mixer offers a conversion loss of 10 dB typical@IF=100MHz and LO input power of 13 dBm typical. The V-band, X6 multiplier of Talent model TMAM-050075-0613-15 can be used as the LO driver for this mixer.

Features:

- RF/LO coverage : 50-75GHz
- IF operation : DC-20 GHz
- Conversion loss: 10dB Typ
- High LO to RF isolation
- Suggested LO drive model: TMAM-050075-0613-15

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	50		75	GHz
LO频率 LO Frequency	50		75	GHz
IF频率 IF Frequency	DC		20	GHz
LO驱动功率 LO-Input power	12	13	17	dBm
变频损耗 Conversion Loss@IF=100MHz		10		dB
变频损耗 Conversion Loss@IF=50GHz		11		dB

机械特性 Mechanical Specifications:

参数 Parameter	指标 Value	单位 Units
RF 接口RF Connector	WR-15/UG-385/U	
LO 接口LO Connector	WR-15/UG-385/U	
IF 接口 IF Connector	SMA Female	
尺寸 Size	28*20*20	mm

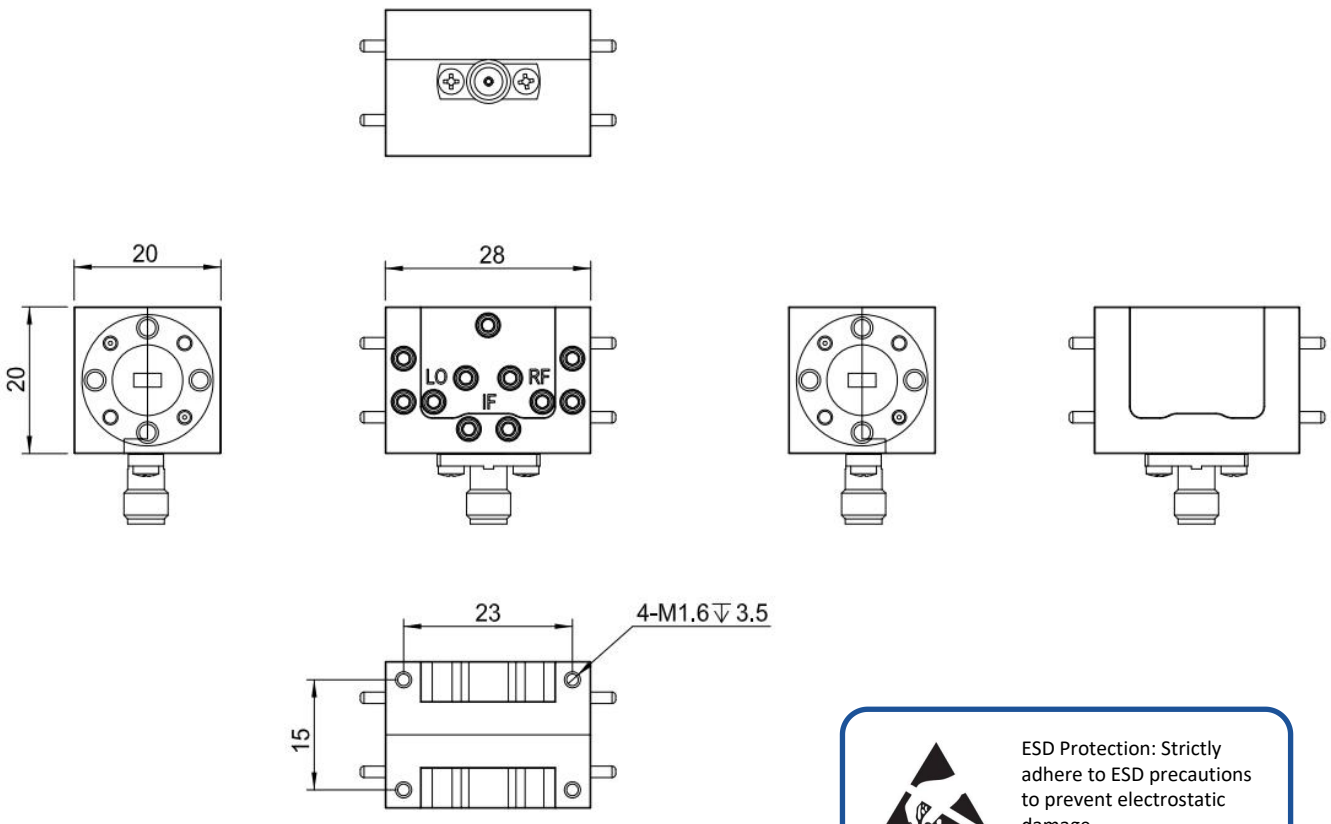
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绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
RF 功率 RF Input Power	+10 dBm
IF 功率 IF Input Power	+10 dBm
LO 功率 LO Input Power	+18 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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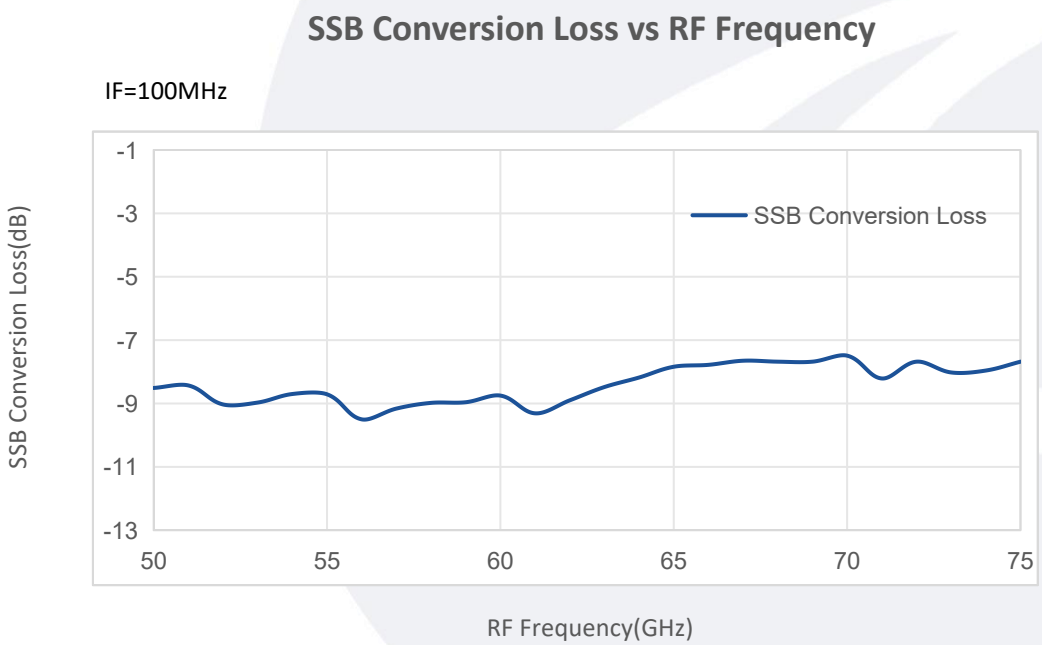
温度环境 Environmental Conditions:

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
TLBM-050075-10-15	V-Band Balance Mixer RF:50-75GHz,LO:50-75GHz,IF:DC-20GHz	Rev.1.1

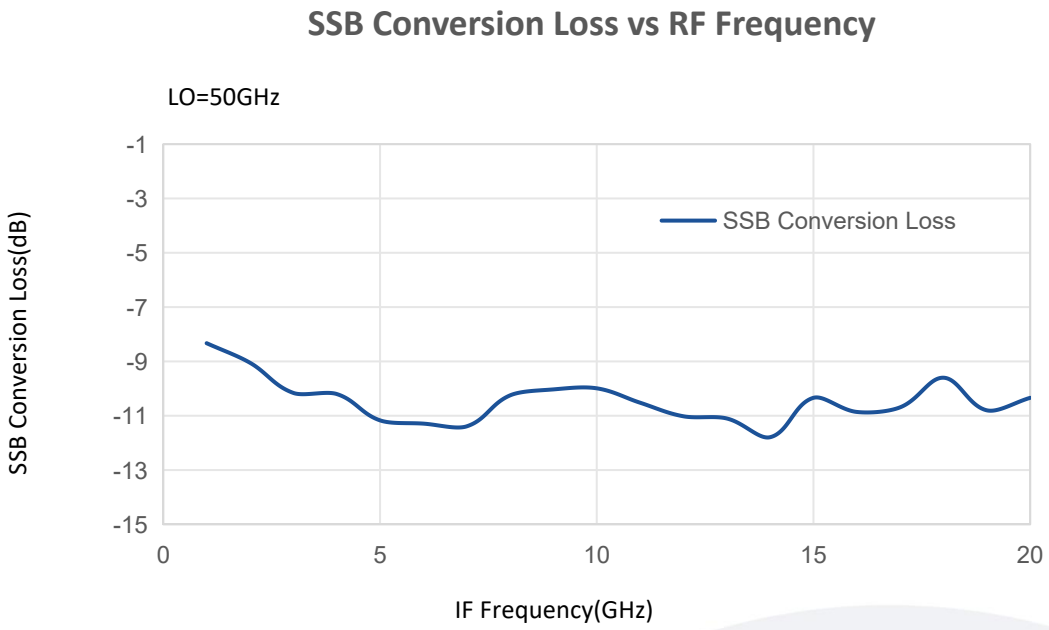
典型曲线 Typical Performance Data:



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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