

V-Band Balance Mixer

RF:50-75 GHz/LO:50-75 GHz/IF:DC-25 GHz

Model: TLBM-050075-25-15

TLBM-050075-25-15 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 25 GHz. The mixer offers a conversion loss of -10 dB typical@IF=100MHz and LO input power of 18 dBm typical.

Features:

- Low LO Power Requirement
- Balance mixer
- Compact Package

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		25	GHz
LO 驱动功率 LO-Input power		16	18	20	dBm
单边带变频损耗 SSB Conversion Loss	@IF=100MHz		-10		dB
	@LO=50GHz		-11		dB

机械特性 Mechanical Specifications:

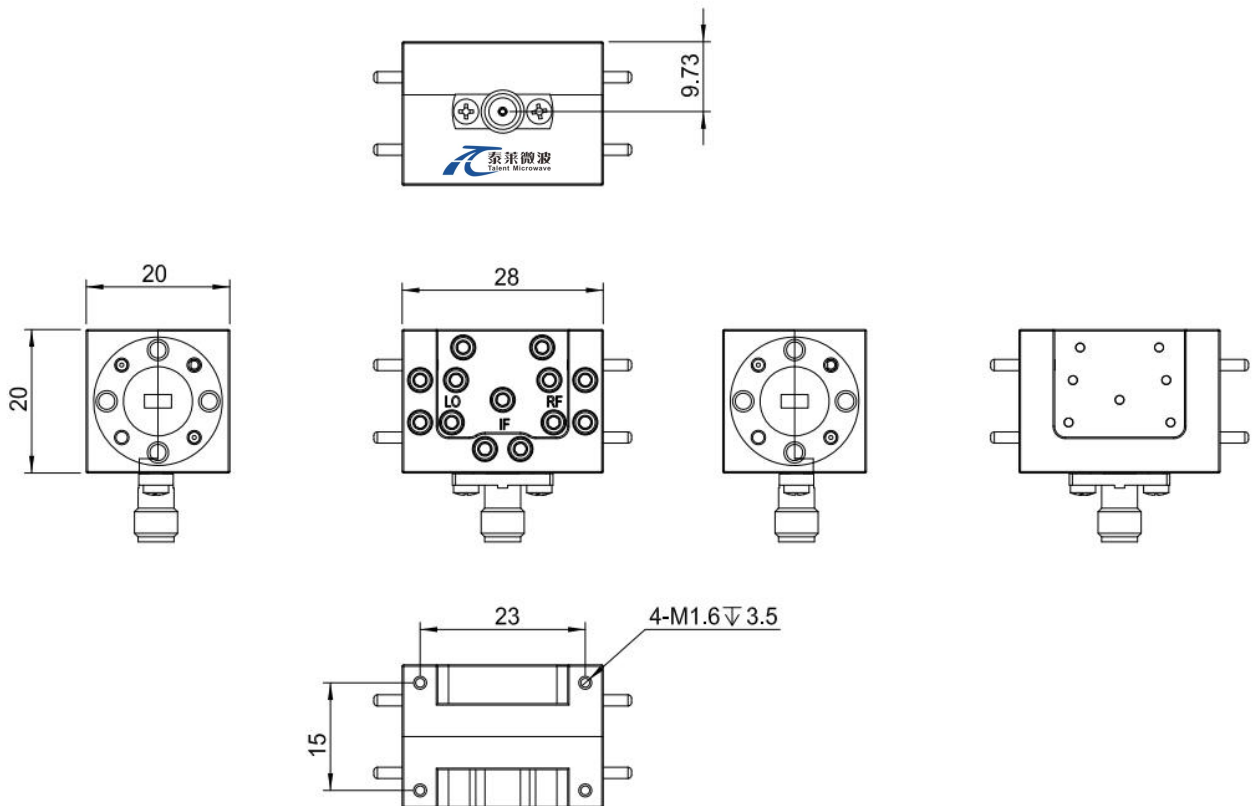
参数 Parameter	指标 Value	单位 Units
RF 接口 RF Connector	WR-15/UG-385/U	
LO 接口 LO Connector	WR-15/UG-385/U	
IF 接口 IF Connector	2.92mm Female	
尺寸 Size	28*20*20	mm

绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
RF 功率 RF Input Power	15 dBm
IF 功率 IF Input Power	15 dBm
LO 功率 LO Input Power	21 dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V

外形图 Outline Drawing:

Unit:mm



温度环境 Environmental Conditions:

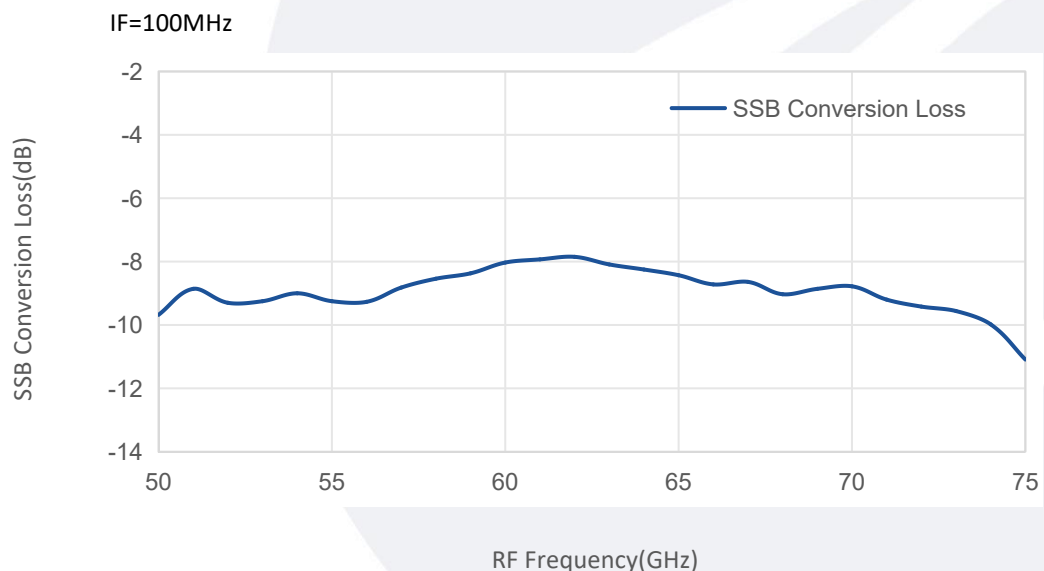
参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	-10		+65	°C
存储温度 Non-operating Temperature	-45		+85	°C
相对湿度 Relative humidity		95		%
海拔 Altitude	10,000			feet
震动 Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
冲击 Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

订货信息 Ordering Information:

标准型号 Base Number	描述 Desciption	版本号 Revision
TLBM-050075-25-15	V-Band Balance Mixer RF:50-75GHz,LO:50-75GHz,IF:DC-25GHz	Rev.1.1

典型曲线 Typical Performance Data:

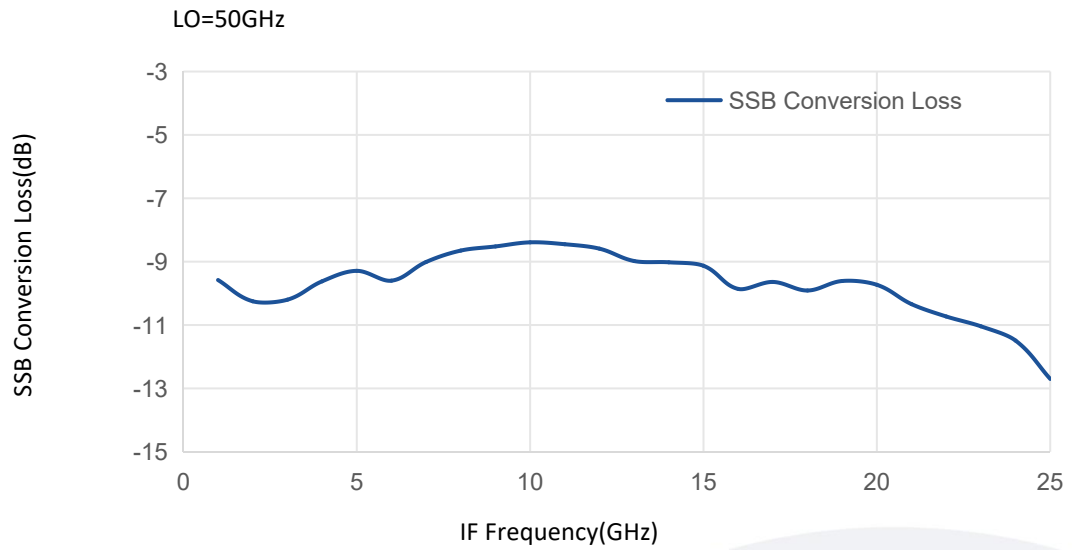
SSB Coverison Loss vs RF Frequency



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.

典型曲线 Typical Performance Data:

SSB Conversion Loss vs IF Frequency



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