W-Band Balance Mixer
RF:75-110 GHz/LO:75-110 GHz/IF:DC-35 GHz   Model: TLBM-075110-30-10

TLBM-075110-30-10 is a W-Band balance mixer. The mixer supports the full waveguide band operation for both LO and RF frequency from 75 to 110 GHz with an extremely broad IF output from DC to 35 GHz. The mixer offers a conversion loss of -10 dB typical@IF=100MHz and LO input power of 13 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		75		110	GHz
LO频率 LO Frequency		75		110	GHz
IF频率 IF Frequency		DC		35	GHz
LO驱动功率 LO-Input power		13	15	16	dBm
射频输入P1dB RF Input P1dB			6		dBm
单边带变频损耗 SSB Conversion Loss	@IF=100MHz		-10		dB
	@LO=75GHz		-12		

机械特性 Mechanical Specifications:

参数 Parameter	指标 Value	单位 Units
RF 接口RF Connector	WR-10/UG-387/U	
LO 接口LO Connector	WR-10/UG-387/U	

绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
RF 功率 RF Input Power	+13 dBm
IF 功率 IF Input Power	+13 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
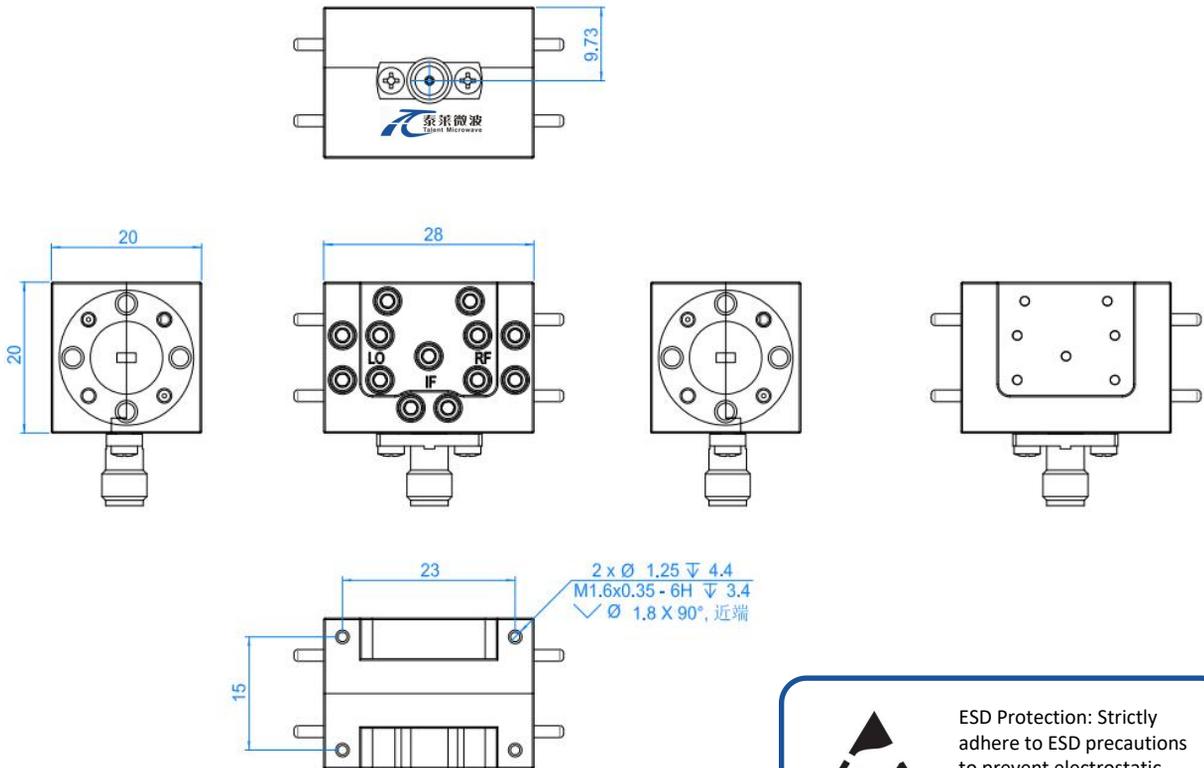
ESD Protection: Strictly adhere to ESD precautions to prevent electrostatic damage.

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:

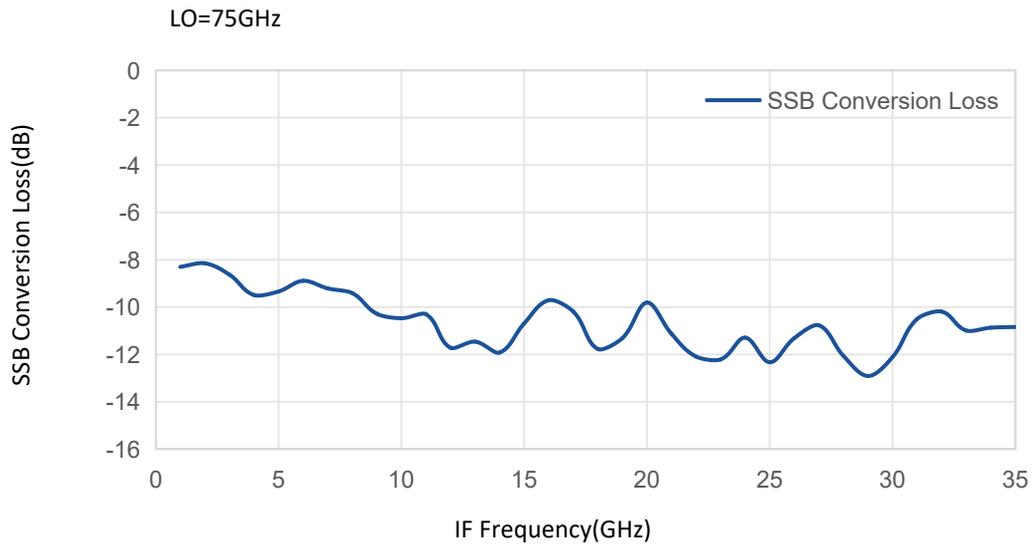| 标准型号 Base Number	描述 Description	版本号 Revision
TLBM-075110-30-10	W-Band Balance Mixer RF:75-110GHz,LO:75-110GHz,IF:DC-35GHz	Rev.1.1

典型曲线 Typical Performance Data:

SSB Coversion Loss vs RF Frequency

IF=100MHz

典型曲线 Typical Performance Data:

SSB Coversion Loss vs RF Frequency

LO=75GHz
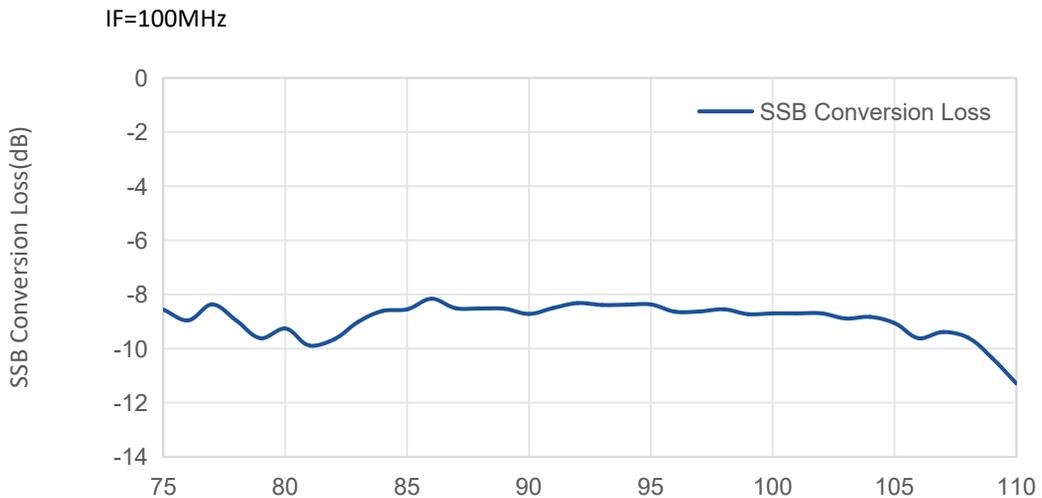
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.