

Q-Band Dual Balance Mixer

RF:33-50 GHz/LO:33-50 GHz/IF:DC-17 GHz

Model: TLBM-033055-21-22

TLBM-033055-21-22 is a dual balance mixer. The mixer covers the LO and RF frequency from 33 to 50 GHz with an extremely broad IF output from DC to 17 GHz. The mixer offers a conversion loss of 7 dB typical and LO input power of 15 dBm typical.

Features:

- RF/LO coverage : 33-50 GHz
- IF operation : DC-17 GHz
- Conversion loss: 7dB Typ
- High LO to RF isolation
- Dual Balanced Mixer

Applications:

- Defense & federal communications
- Instrumentations

电气特性 Electrical Characteristics:

参数 Parameter	Min	Typ	Max	单位 Units
RF频率 RF Frequency	33		50	GHz
LO频率 LO Frequency	33		50	GHz
LO 驱动功率 LO-Input power		15		dBm
IF频率 IF Frequency	DC		17	GHz
RF输入P1dB RF Input P1dB		8		dBm
单边带变频损耗 SSB Conversion Loss		-7		dB

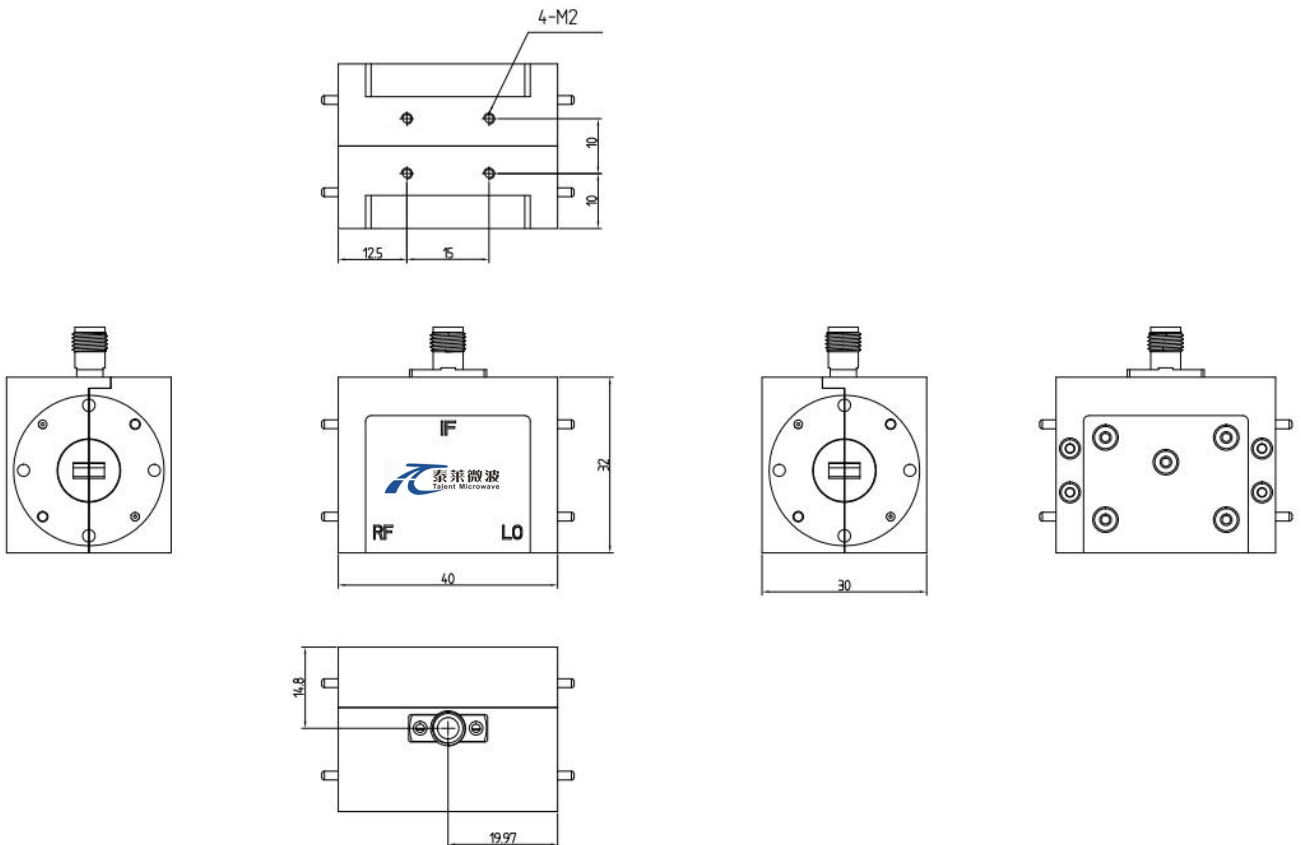
机械特性 Mechanical Specifications:

参数 Parameter	指标 Value	单位 Units
RF 接口 RF Connector	WR-22/UG-383	
LO 接口 LO Connector	WR-22/UG-383	
IF 接口 IF Connector	SMA Female	
尺寸 Size	40*32*30	mm

绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
RF 功率 RF Input Power	27 dBm
IF 功率 IF Input Power	27 dBm
LO 功率 LO Input Power	27 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:

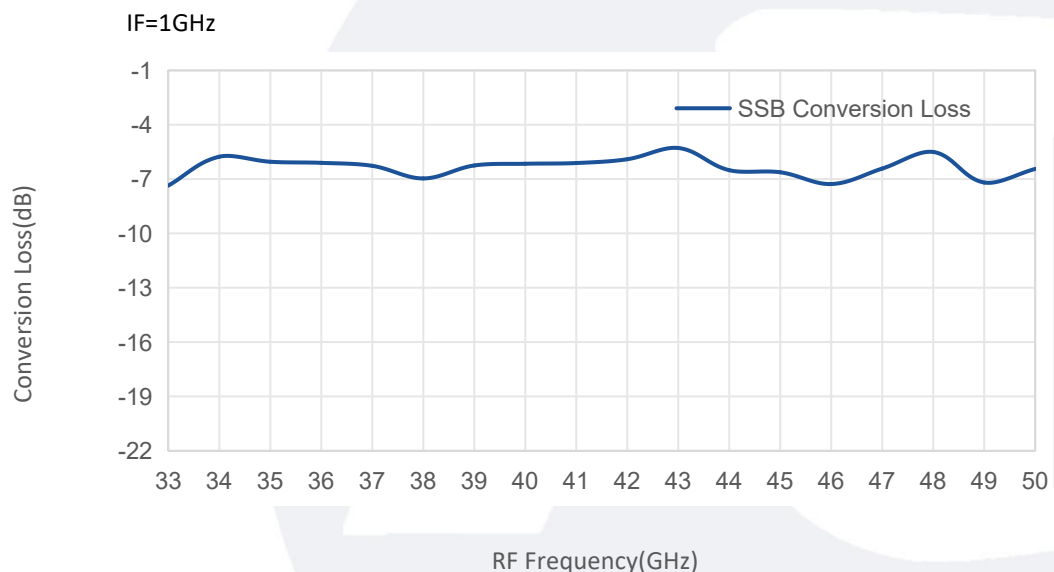
参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	-25		+50	°C
存储温度 Non-operating Temperature	-45		+85	°C
相对湿度 Relative humidity		95		%
海拔 Altitude	10,000			feet
震动 Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
冲击 Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

订货信息 Ordering Information:

标准型号 Base Number	描述 Description	版本号 Revision
TLBM-033055-21-22	Q-Band Dual Balanced Mixer RF:33-50GHz,LO:33-50GHz,IF:DC-17GHz	Rev.1.1

典型曲线 Typical Performance Data:

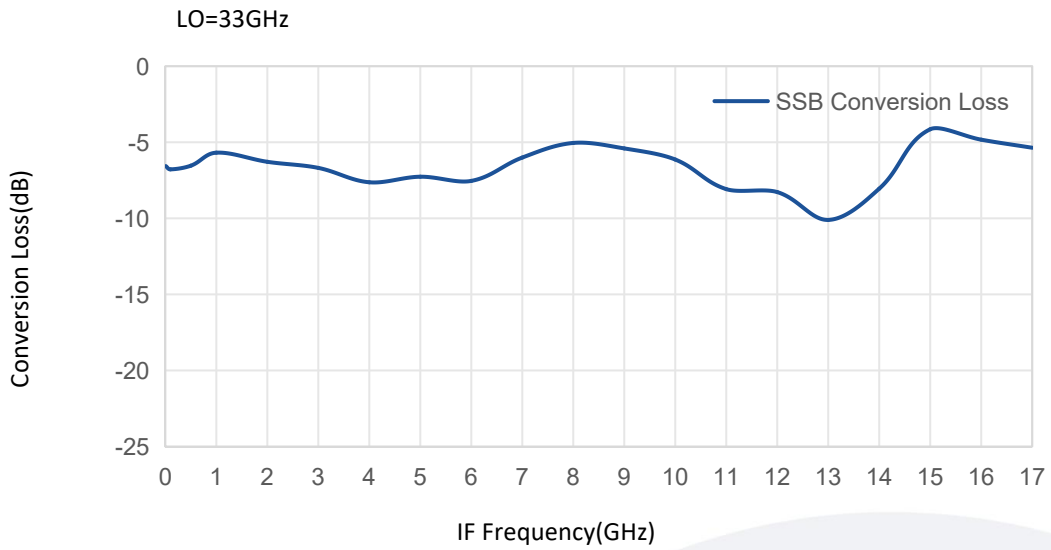
Coverison Loss vs RF Frequency



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:

Conversion Loss vs IF 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.