泰莱微波 Talent Microwave

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

Dual Balance Mixer

RF:18-57GHz/LO:18-57GHz/IF:DC-21GHz　　Model: TLBM-1857-LS

TLBM-1857-LS is a dual balance mixer. The mixer covers the LO and RF frequency from 18 to 57 GHz with an extremely broad IF output from DC to 21 GHz. The mixer offers a conversion loss of 9 dB typical and LO input power of 15 dBm typical.

Features:

- RF/LO coverage: 18-57GHz
- IF operation: DC-21GHz
- Conversion loss: 9dB 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	18		57	GHz
LO频率 LO Frequency	18		57	GHz
LO驱动功率 LO-Input power	11	15	20	dBm
IF频率 IF Frequency	DC		21	GHz
输入1dB压缩点 Input P1dB		8		dBm
变频损耗 Conversion Loss		9		dB
RF至IF隔离度 RF to IF Isolation		35		dB
RF至LO隔离度 RF to LO Isolation		40		dB
LO至IF隔离度 LO to IF Isolation		25		dB

机械特性 Mechanical Specifications:

参数 Parameter	指标 Value	单位 Units
端口1 Connector1	1.85mm Female	
端口2 Connector 2	SMA Female	
端口3 Connector 3	1.85mm Female	
尺寸 Size	23.6*14.4*8	mm
重量 Weight	12.8	g

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

接口定义 Connector Functions:

Apply A:

端口 Port	功能 Function
Connector 1	RF
Connector 2	IF
Connector 3	LO

Apply B:

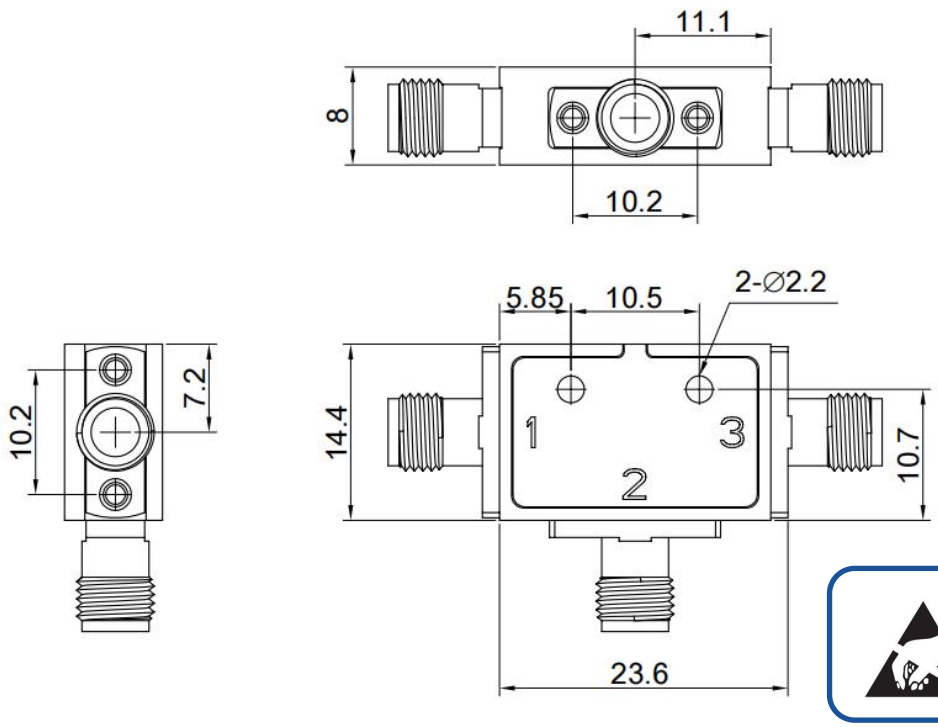
端口 Port	功能 Function
Connector 1	LO
Connector 2	IF
Connector 3	RF

绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
RF/LO功率 RF/LO Input Power	21 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.

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

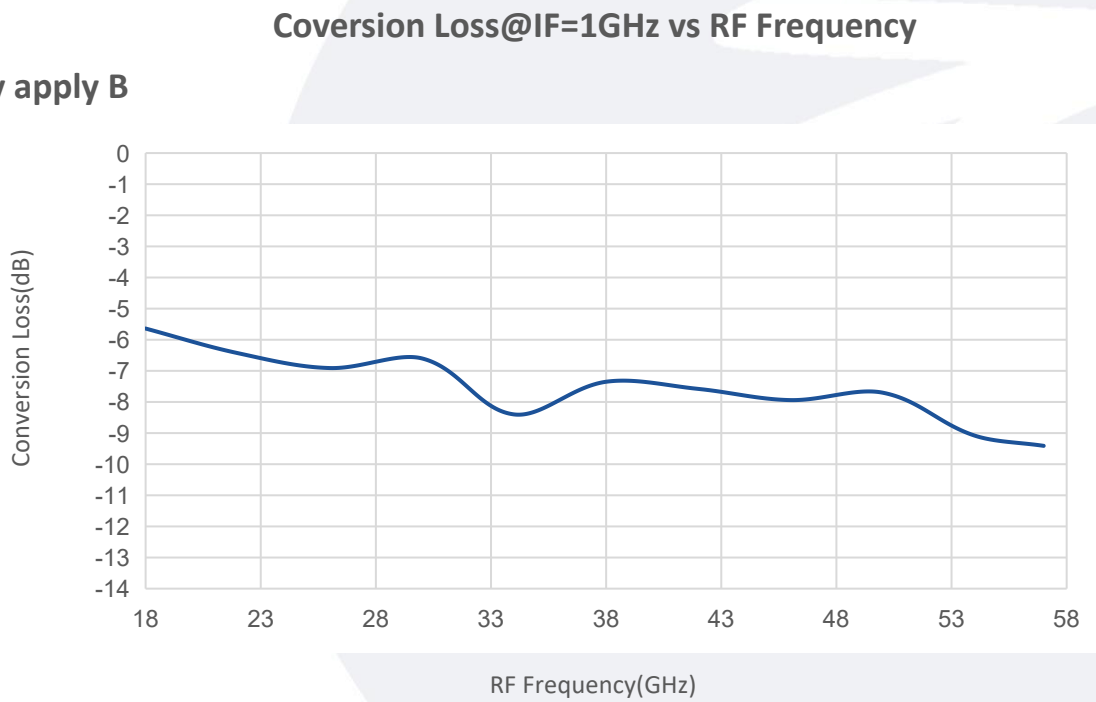
温度环境 Environmental Conditions:

参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	-40		+70	℃
存储温度 Non-operating Temperature	-55		+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-1857-LS	Dual Balanced Mixer RF:18-57GHz,LO:18-57GHz,IF:DC-21GHz	Rev.1.1

典型曲线 Typical Performance Data:



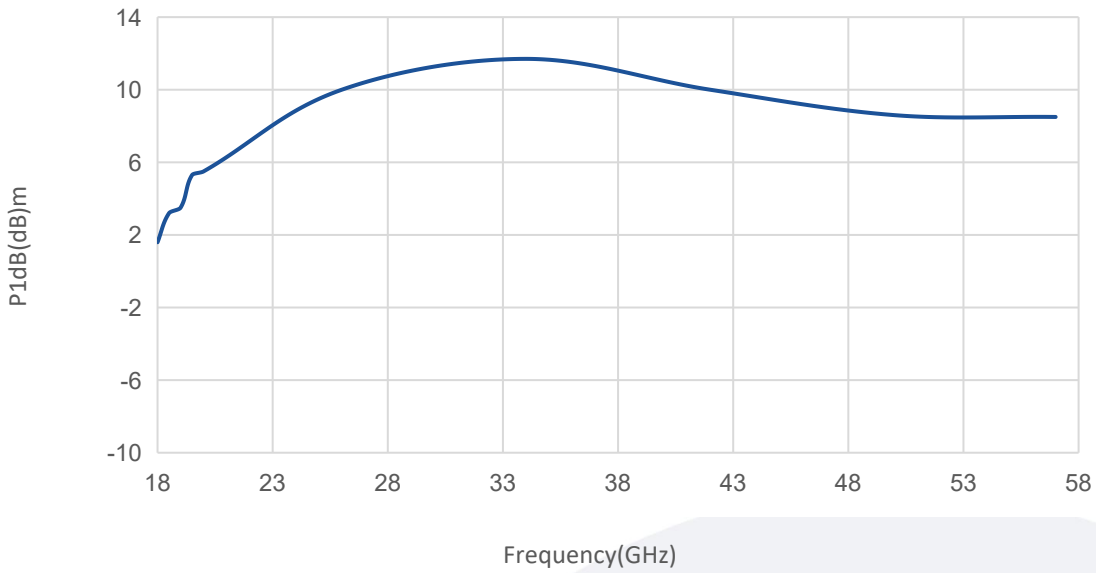
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

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

典型曲线 Typical Performance Data:

By apply B

Input P1dB vs Frequency



By apply B

LO to IF Isolation vs Frequency



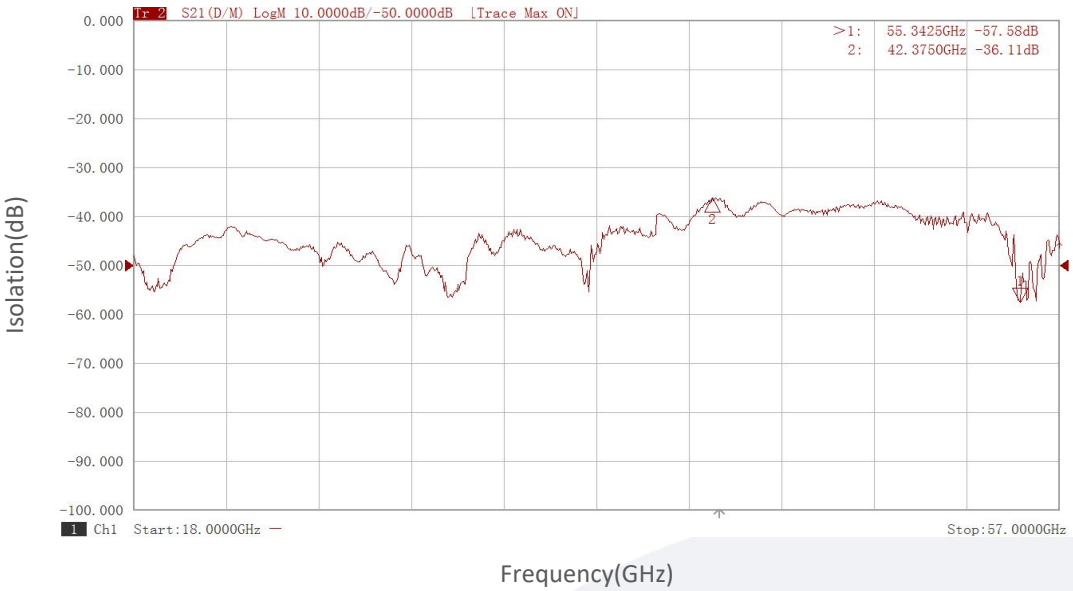
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

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

典型曲线 Typical Performance Data:

LO to RF Isolation vs Frequency

By apply B



RF to IF Isolation vs Frequency

By apply B



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.