泰莱微波
Talent Microwave

Suzhou Talent Microwave,Inc
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Trip Balance Mixer

RF:5-30 GHz/LO:5-30 GHz/IF:2-20 GHz

Model: TLBM-0530-LS

TLBM-0530-LS is a trip balance mixer. The mixer covers the RF frequency from 5 to 30 GHz ,LO frequency from 5 to 30 GHz with an extremely broad IF output from 2 to 20 GHz. The mixer offers a conversion loss of 12 dB typical and LO input power of 15 dBm typical.

Features:

- RF coverage : 5-30GHz
- LO coverage : 5-30GHz
- IF operation : 2-20GHz
- Conversion loss: 12dB 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	5		30	GHz
LO频率 LO Frequency	5		30	GHz
LO驱动功率 LO-Input power	10	15	17	dBm
IF频率 IF Frequency	2		20	GHz
输入1dB压缩点 Input P1dB		8		dBm
变频损耗 Conversion Loss		12		dB
RF至IF隔离度 RF to IF Isolation		30		dB
RF至LO隔离度 RF to LO Isolation		30		dB
LO至IF隔离度 LO to IF Isolation		30		dB

机械特性 Mechanical Specifications:

参数 Parameter	指标 Value	单位 Units
端口1 Connector1	2.92mm Female	
端口2 Connector 2	SMA Female	
端口3 Connector 3	2.92mm Female	
尺寸 Size	23.6*14.4*8	mm

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绝对最大值 Absolute Maximum Ratings:

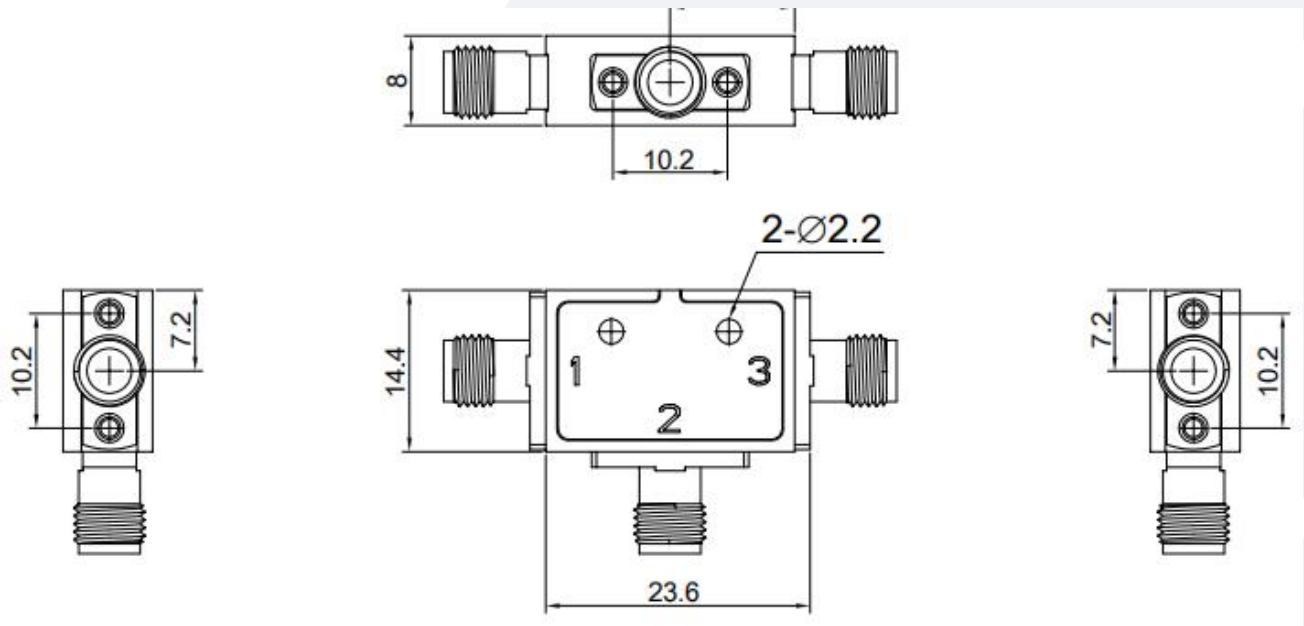
参数 Parameter	指标 Value
RF/LO功率 RF/LO Input Power	20 dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V

接口定义 Port Functions

端口 Port	功能 Function
Port1	RF/LO
Port2	IF
Port3	LO/RF

外形图 Outline Drawing:

Unit:mm



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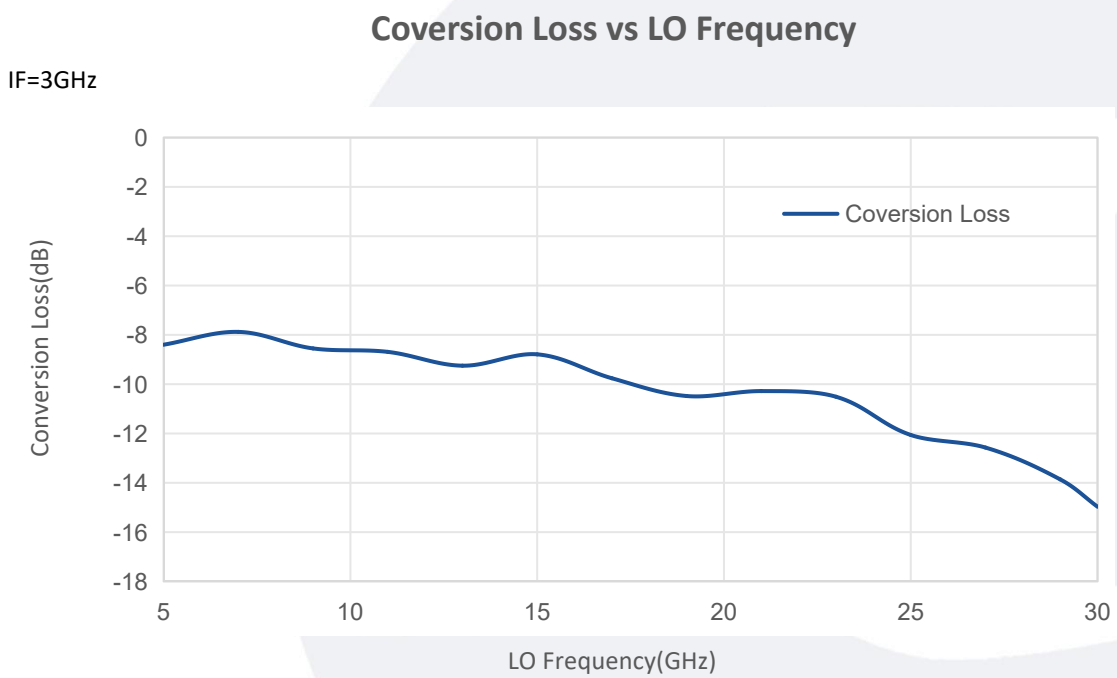
温度环境 Environmental Conditions:

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-0530-LS	Trip Balanced Mixer RF:5-30GHz,LO:5-30GHz,IF:2-20GHz	Rev.1.0

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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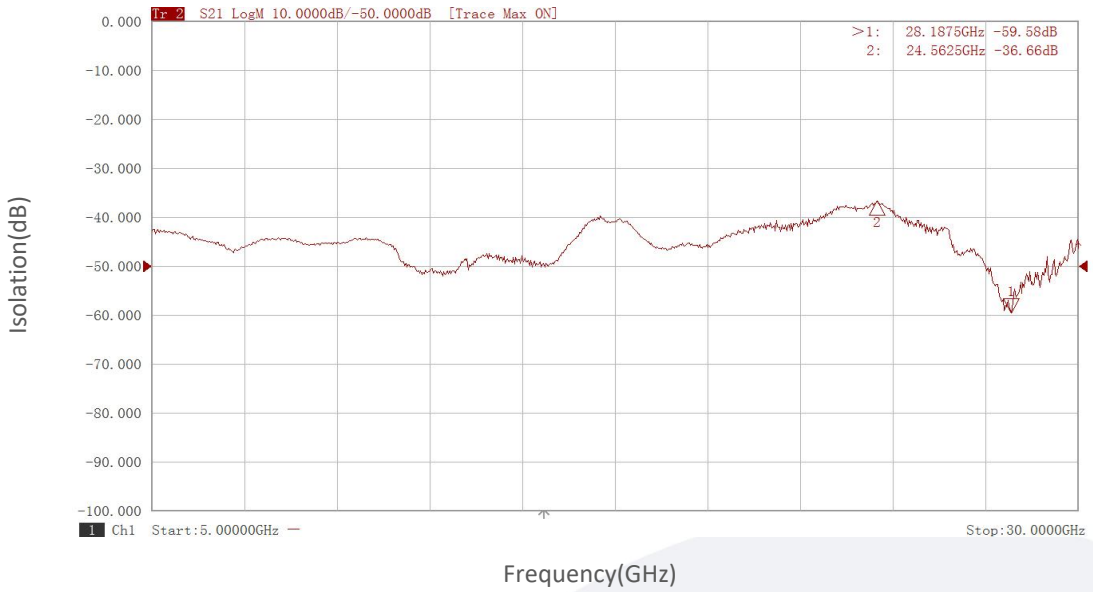
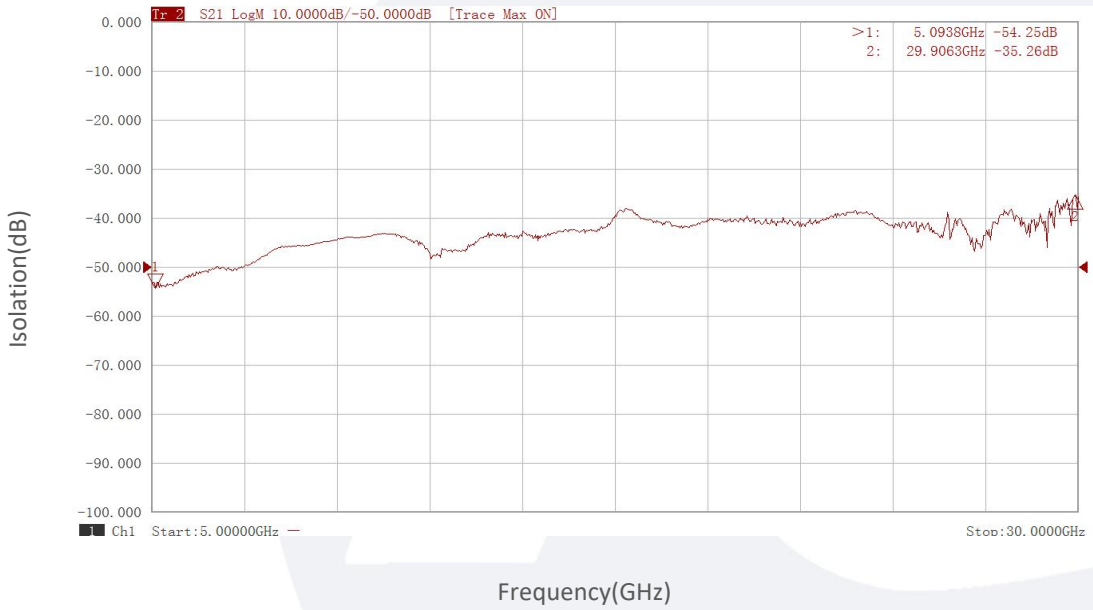
典型曲线 Typical Performance Data:

LO to IF Isolation vs Frequency



LO to RF Isolation vs Frequency



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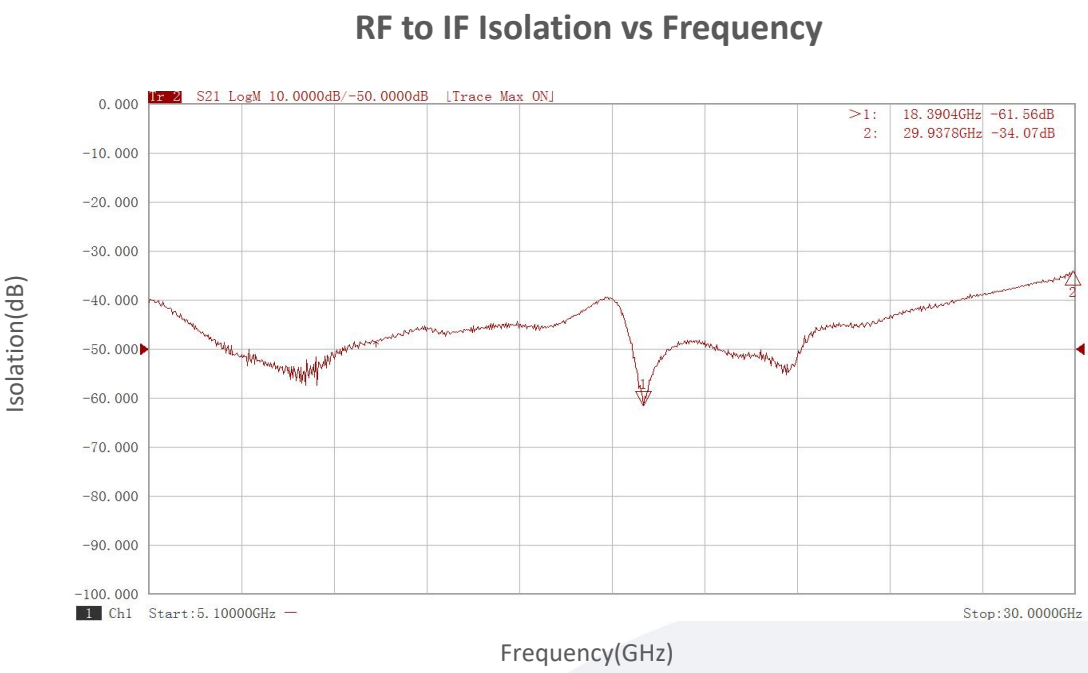

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