

Dual Balance Mixer

RF:2-18GHz/LO:2-18GHz/IF:DC-3GHz**Model: TLBM-0218-S**

TLBM-0218-S is a dual balance mixer. The mixer covers the LO and RF frequency from 2 to 18 GHz with an extremely broad IF output from DC to 3 GHz. The mixer offers a conversion loss of 13 dB typical and LO input power of 15 dBm typical.

Features:

- RF/LO coverage: 2-18GHz
- IF operation: DC-3GHz
- Conversion loss: 13dB 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	2		18	GHz
LO频率 LO Frequency	2		18	GHz
LO驱动功率 LO-Input power		15		dBm
IF频率 IF Frequency	DC		3	GHz
变频损耗 Conversion Loss		13		dB
输入P1dB压缩点 Input 1 dB Gain Compression Point		TBD		dBm
LO to IF隔离 LO to IF Isolation		25		dB
LO to RF隔离 LO to RF Isolation		25		dB
RF to IF隔离 RF to IF Isolation		20		dB
阻抗 Impedance		50		Ohms

机械特性 Mechanical Specifications:

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

接口定义 Connector Functions:

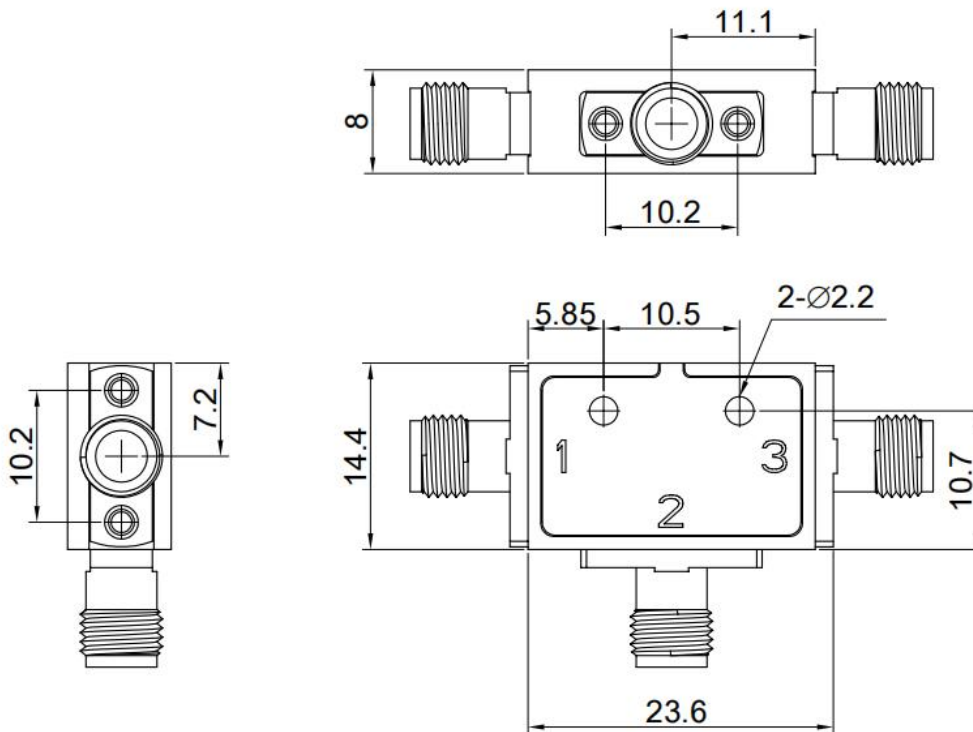
端口 Port	功能 Function
Connector 1	LO
Connector 2	IF
Connector 3	RF

绝对最大值 Absolute Maximum Ratings:

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

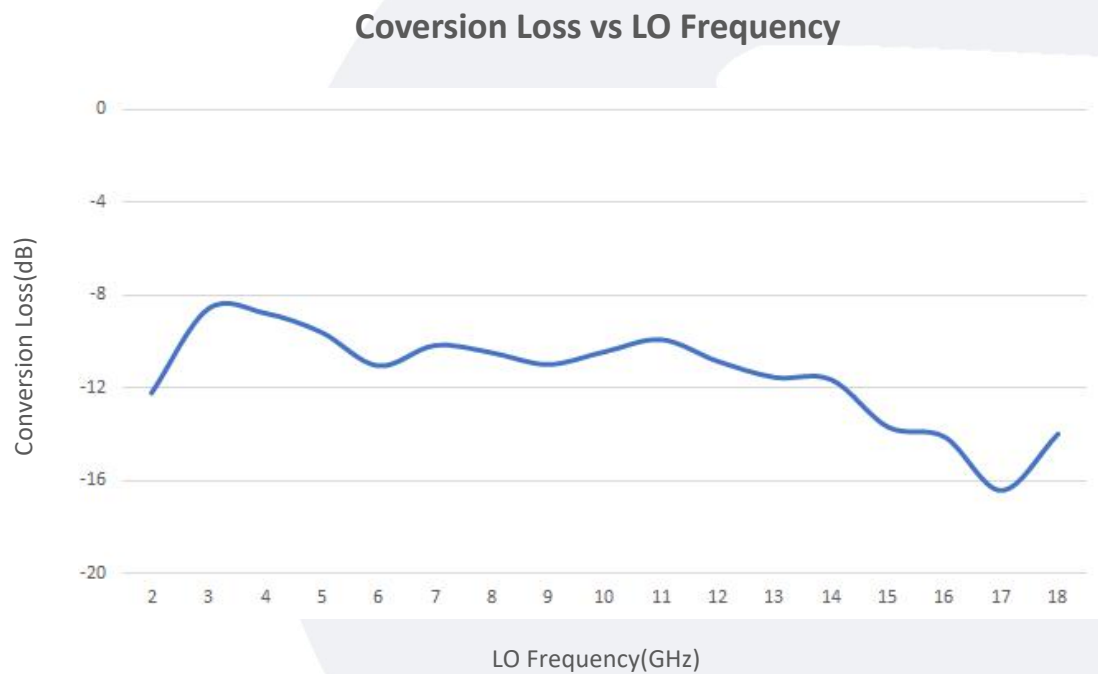
温度环境 Environmental Conditions:

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-0218-S	Dual Balanced Mixer RF:2-18GHz,LO:2-18GHz,IF:DC-3GHz	Rev.1.1

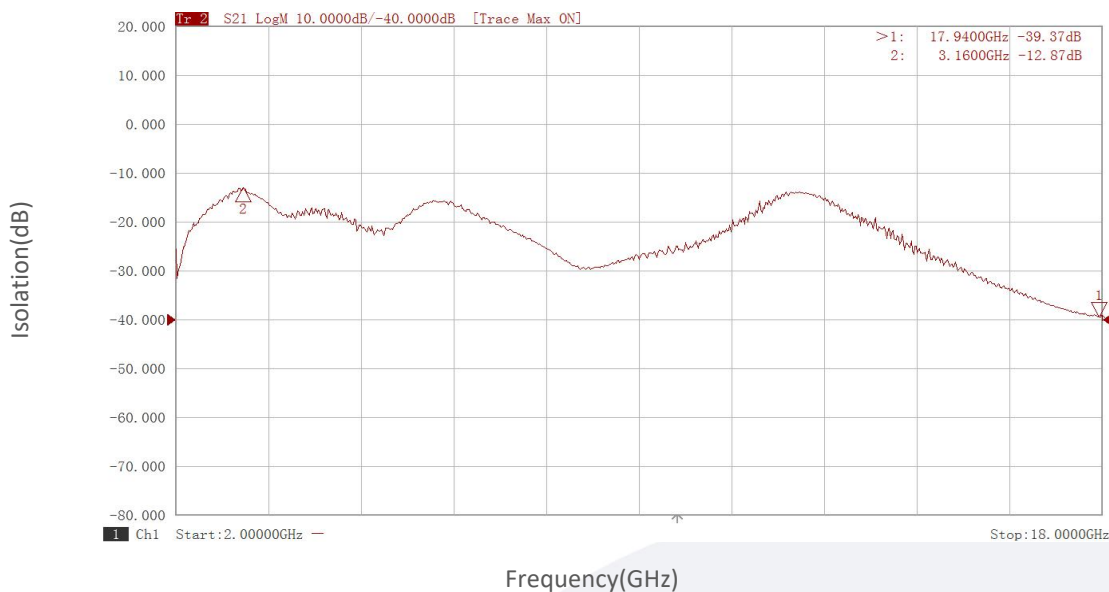
典型曲线 Typical Performance Data:



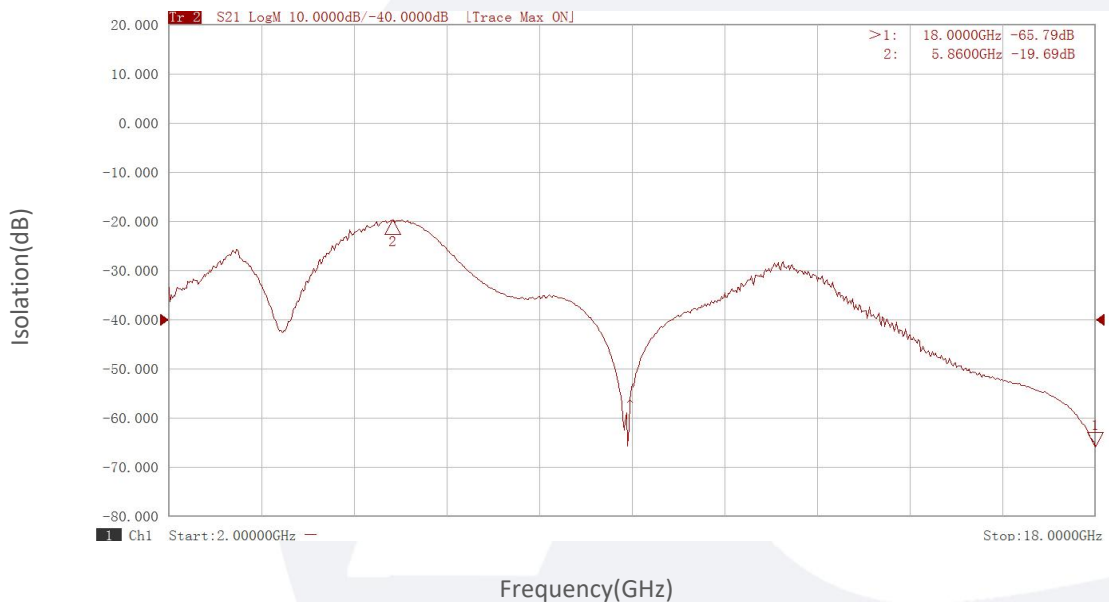
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

典型曲线 Typical Performance Data:

LO to IF Isolation vs Frequency



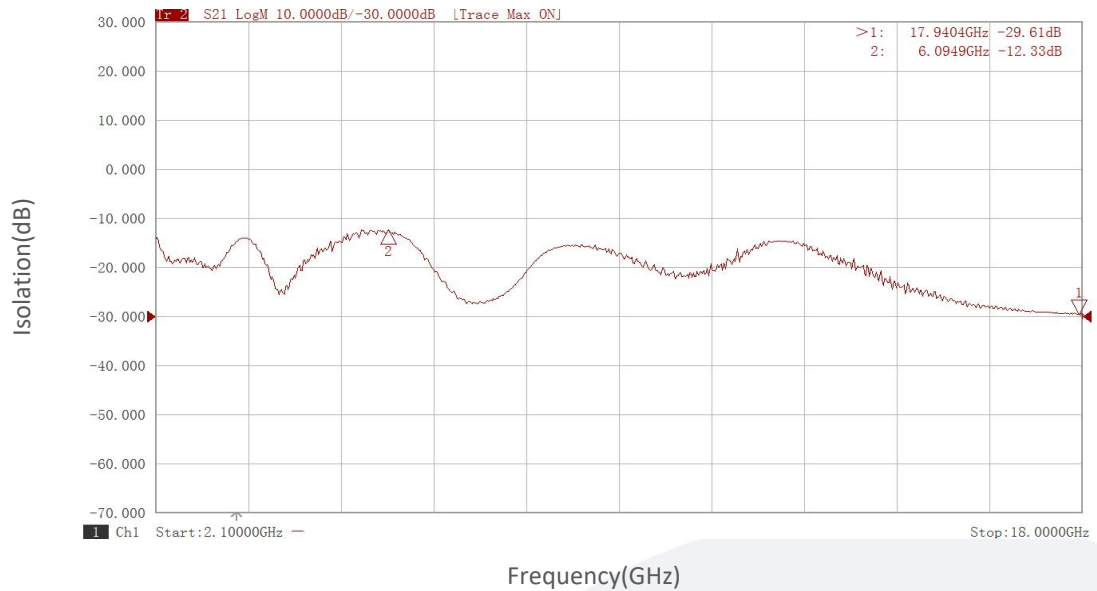
LO to RF Isolation vs Frequency



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典型曲线 Typical Performance Data:

RF to IF Isolation vs Frequency



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