

Dual Balance Mixer

RF: 0.01-67GHz/LO: 0.01-67GHz/IF: 0.01-1GHz

Model: TLBM-0.01G67G-01-V

TLBM-0.01G67G-01-V is a dual balance mixer. The mixer covers the LO and RF frequency from 0.01 to 67 GHz with an extremely broad IF output from 0.01 to 1 GHz. The mixer offers a conversion loss of 7 dB typical and LO input power of 1 dBm typical.

Features:

- RF/LO coverage : 0.01-67GHz
- IF operation : 0.01-1GHz
- 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	0.01		67	GHz
LO频率 LO Frequency	0.01		67	GHz
LO驱动功率 LO-Input power	-2	1	3	dBm
IF频率 IF Frequency	0.01		1	GHz
输入1dB压缩点 P-1 Input P1dB		0		dBm
变频损耗 Conversion Loss		7		dB
RF至IF隔离度 RF to IF Isolation		15		dB
RF至LO隔离度 RF to LO Isolation		35		dB
LO至IF隔离度 LO to IF Isolation		25		dB
VEE供电电压 VEE power supply	-3.5	-3.3	-3	V
供电电流 DC Supply Current		90		mA

机械特性 Mechanical Specifications:

参数 Parameter	指标 Value	单位 Units
RF端口 RF Port	1.85mm Female	
LO端口 LO Port	1.85mm Female	
IF端口 IF Port	SMA Female	
直流偏置 DC Bias	SMA Female	
尺寸 Size	17.5*17.5*8	mm

绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
RF/LO功率 RF/LO Input Power	5 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	-45		+85	°C
存储温度 Non-operating Temperature	-55		+125	°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			

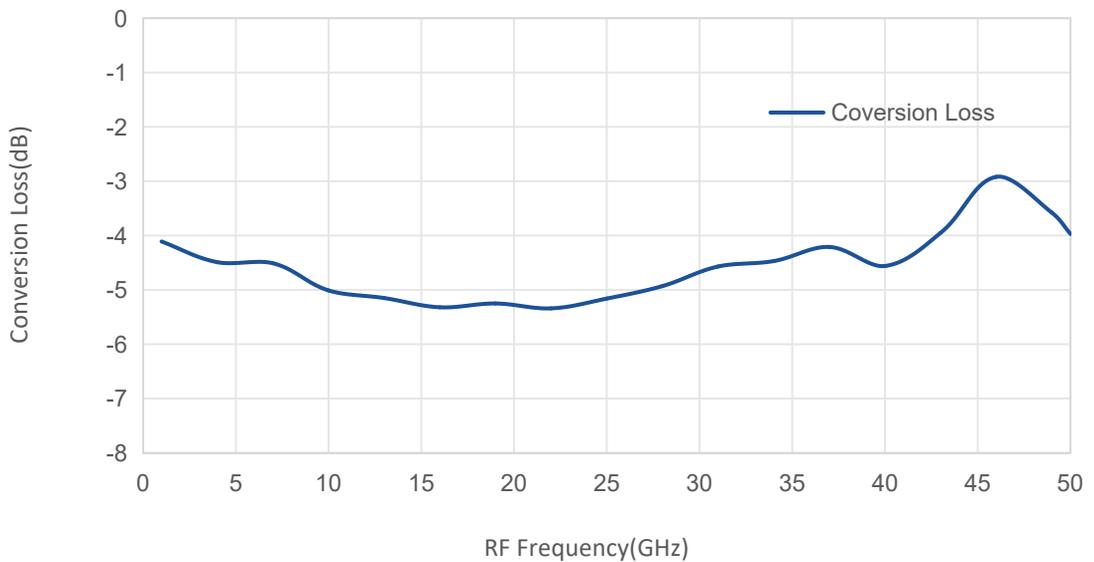
订货信息 Ordering Information:

标准型号 Base Number	描述 Description	版本号 Revision
TLBM-0.01G67G-01-V	Dual Balanced Mixer RF:0.01-67GHz,LO:0.01-67GHz,IF:0.01-1GHz	Rev.1.1

典型曲线 Typical Performance Data:

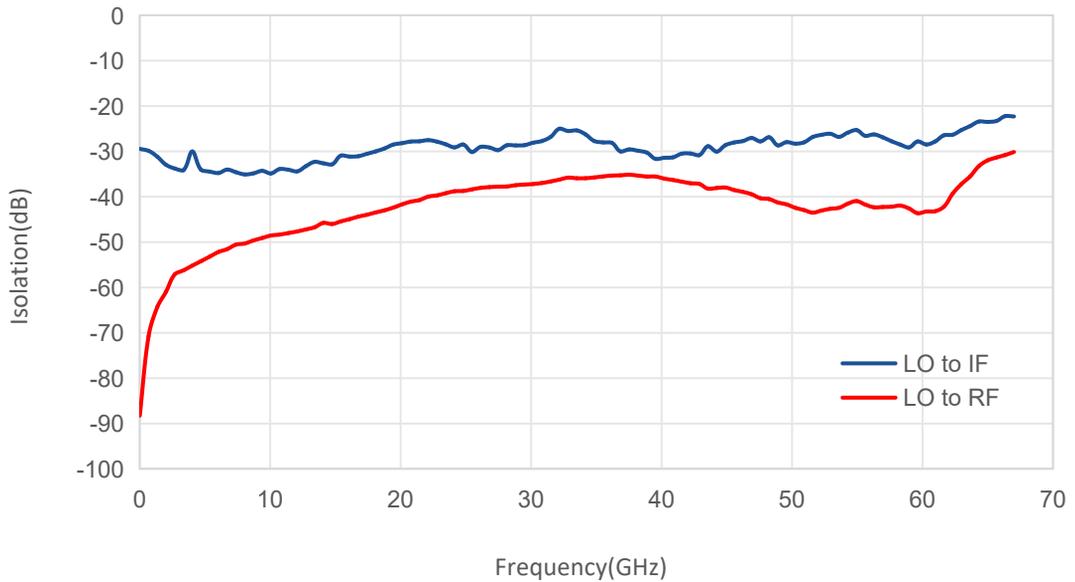
Conversion Loss vs RF Frequency

IF=100MHz, LO= 0dBm

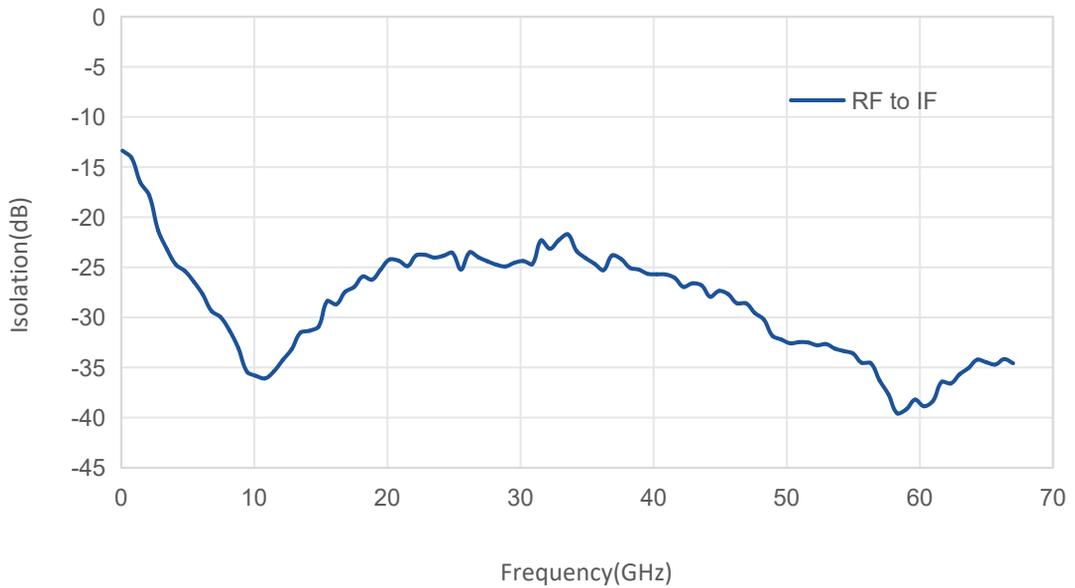


典型曲线 Typical Performance Data:

LO to IF/RF Isolation vs Frequency



RF 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.