泰莱微波 Talent Microwave

Suzhou Talent Microwave,Inc
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V-band,Active Tx/Rx Converter

WR-15/ 50-75GHz /-10dB Conversion Loss

Model: TLAMCM-050075-20-15

TLAMCM-050075-20-15 is an up and down fundamental mixer integrated with x4 active frequency multiplier chain. The converter has an input LO frequency of 12.5 to 18.75 GHz with a typical input power of 5 dBm. RF frequency can range from 50 to 75 GHz and IF port can range from DC to 20GHz with 2.92mm connector. The DC power requirement for the multiplier is +12 V DC.

Features:

- RF Frequency:50-75GHz
- LO Frequency:12.5-18.75GHz
- IF Frequency:DC-20GHz
- Low Conversion Loss

Applications:

- Test Equipment
- Radar System
- V-band Imaging

电气特性 Electrical Characteristics:

参数 Parameter	Min	Typ	Max	单位 Units
RF频率 RF Frequency	50		75	GHz
4XLO频率 4XLO Frequency	50		75	GHz
LO频率 LO Frequency	12.5		18.75	GHz
IF频率 IF Frequency	DC		20	GHz
LO 驱动功率 LO-Input power	3	5	7	dBm
LO倍频次数 LO Multiplier factor		12		
中频输入P1dB IF Input P1dB		8		dBm
射频输入P1dB RF Input P1dB		8		dBm
变频损耗 Conversion Loss(IF=100MHz)		-10		dB
变频损耗 Conversion Loss(LO=12.5GHz)		-10		dB
直流电压 DC Supply Voltage		12		V DC
直流电流 DC Supply Current		200		mA

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机械特性 Mechanical Specifications:

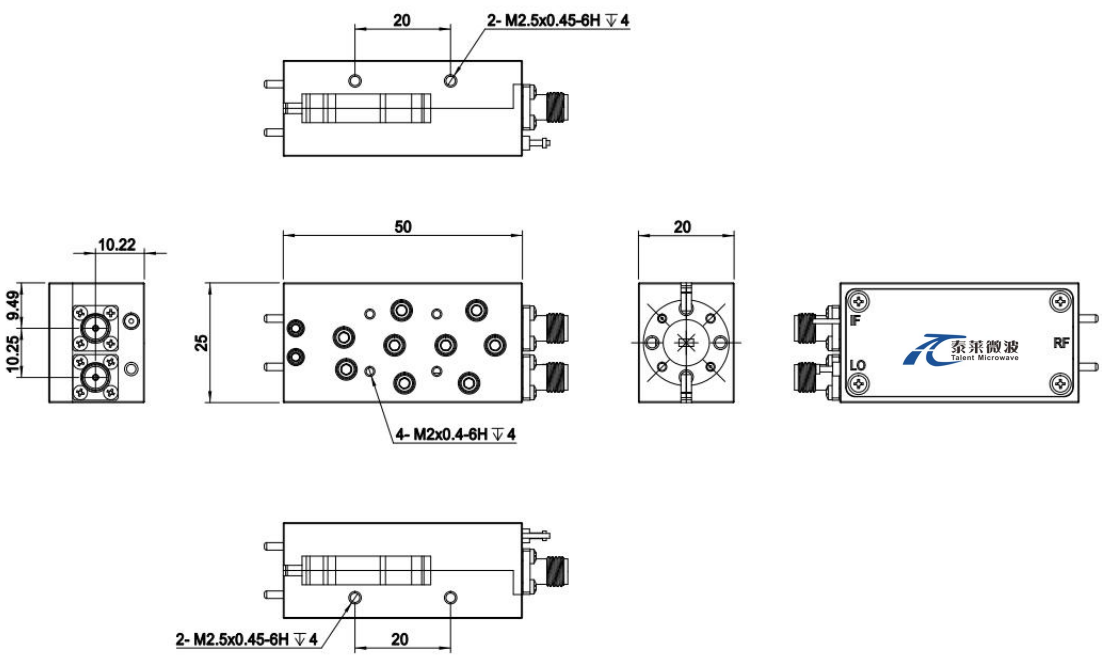
参数 Parameter	指标 Value	单位 Units
RF 接口RF Connector	WR-15/UG-383/U	
LO 接口LO Connector	SMA Female	
IF 接口 IF Connector	2.92mm Female	
尺寸 Size	50*25*20	mm
重量 Weight	/	g

绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
RF输入功率 RF Input Power	12 dBm
LO输入功率 LO Input Power	10 dBm
IF输入功率 IF Input Power	12 dBm
直流电压 DC Supply Voltage	+15 V
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V

外形图 Outline Drawing:

Unit:mm



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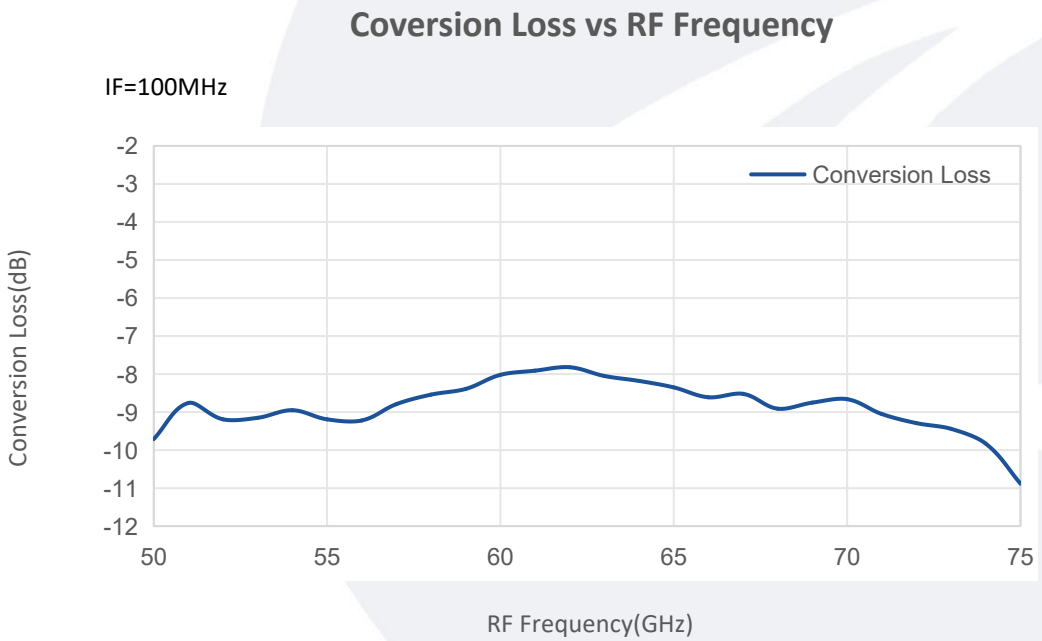
温度环境 Environmental Conditions:

参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	0		+50	℃
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 Desciption	版本号 Revision
TLAMCM-050075-20-15	V-band Active Tx/Rx Converter, Conversion Loss:-10dB,WR-15/UG-383/U	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.

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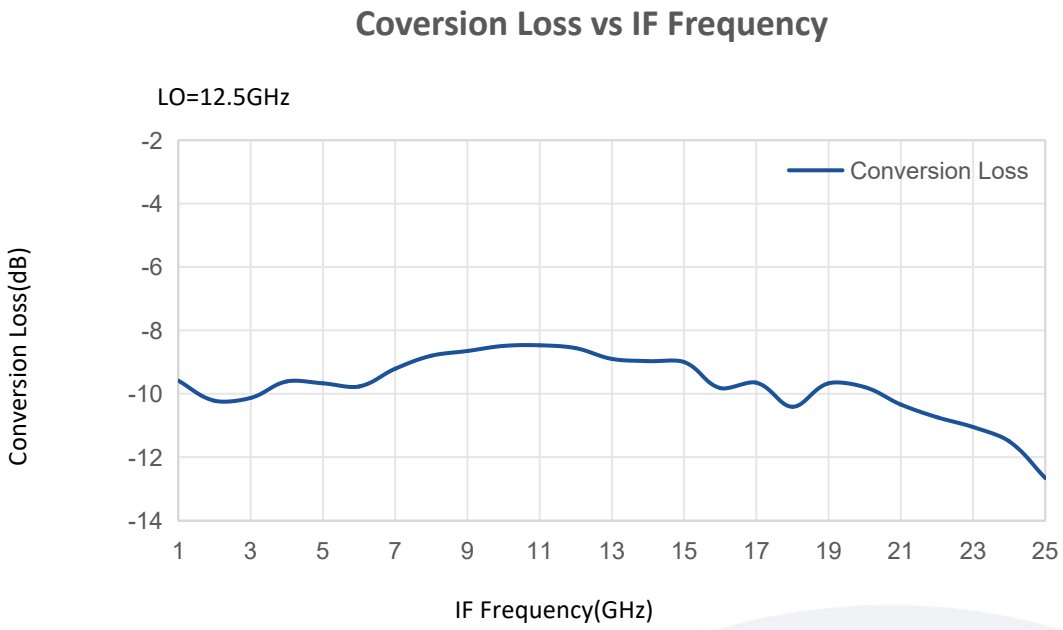

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