

U-band,Active Tx/Rx Converter

WR-19/40-60GHz/-10dB Conversion Loss

Model: TLAMCM-040060-0820-19-L

TLAMCM-040060-0820-19-L is an up and down fundamental mixer integrated with x8 active frequency multiplier chain. The converter has an input LO frequency of 5 to 7.5 GHz with a typical input power of 0 dBm. RF frequency can range from 40 to 60 GHz with WR-19 waveguides and UG-383/U-M antcocking flanges and IF port can range from DC to 20GHz with 2.92mm connector.

Features:

- RF Frequency: 40-60GHz
- LO Frequency: 5-7.5GHz
- IF Frequency: DC-20GHz
- Low Conversion Loss

Applications:

- Test Equipment
- Radar System
- Defense & federal communications
- Instrumentations

电气特性 Electrical Characteristics:

参数 Parameter	Min	Typ	Max	单位 Units
RF频率 RF Frequency	40		60	GHz
8XLO频率 8XLO Frequency	5		7.5	GHz
LO频率 LO Frequency	40		60	GHz
IF频率 IF Frequency	DC		20	GHz
LO 驱动功率 LO-Input power		0		dBm
LO倍频次数 LO Multiplier factor		8		
中频输入P1dB IF Input P1dB		2		dBm
射频输入P1dB RF Input P1dB		4		dBm
变频损耗 Conversion Loss(IF=100MHz)		-10		dB
变频损耗 Conversion Loss(LO=5GHz)		-11		dB
直流电压 DC Supply Voltage		5		V DC
直流电流 DC Supply Current		390		mA

机械特性 Mechanical Specifications:

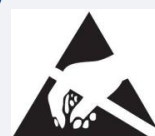
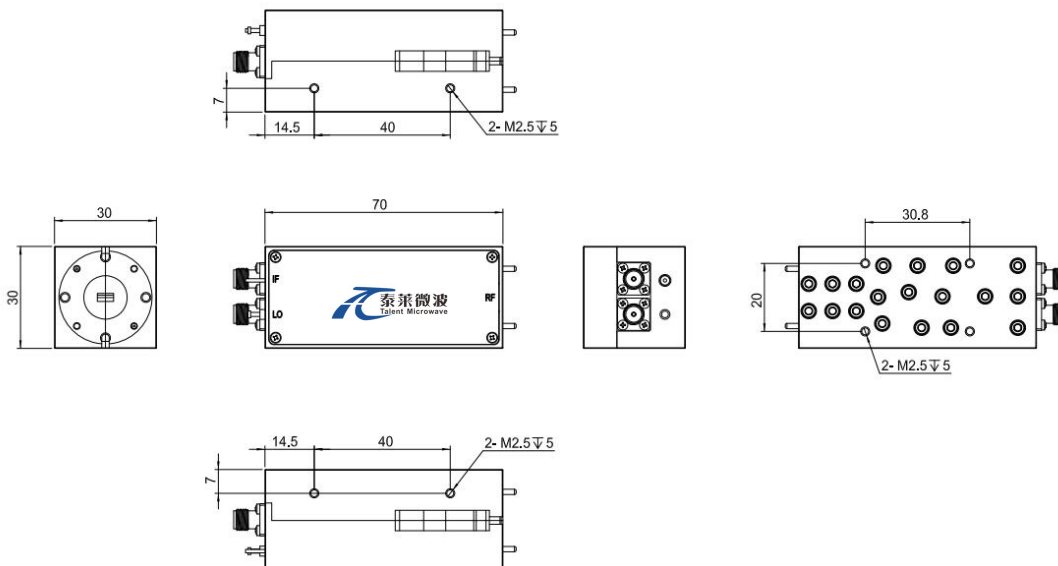
参数 Parameter	指标 Value	单位 Units
RF 接口 RF Connector	WR-19/UG-383/U	
LO 接口 LO Connector	SMA Female	
IF 接口 IF Connector	2.92mm Female	
尺寸 Size	70*30*30	mm

绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
RF输入功率 RF Input Power	+25 dBm
LO输入功率 LO Input Power	+7 dBm
IF输入功率 IF Input Power	+25 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



ESD Protection: Strictly adhere to ESD precautions to prevent electrostatic damage.

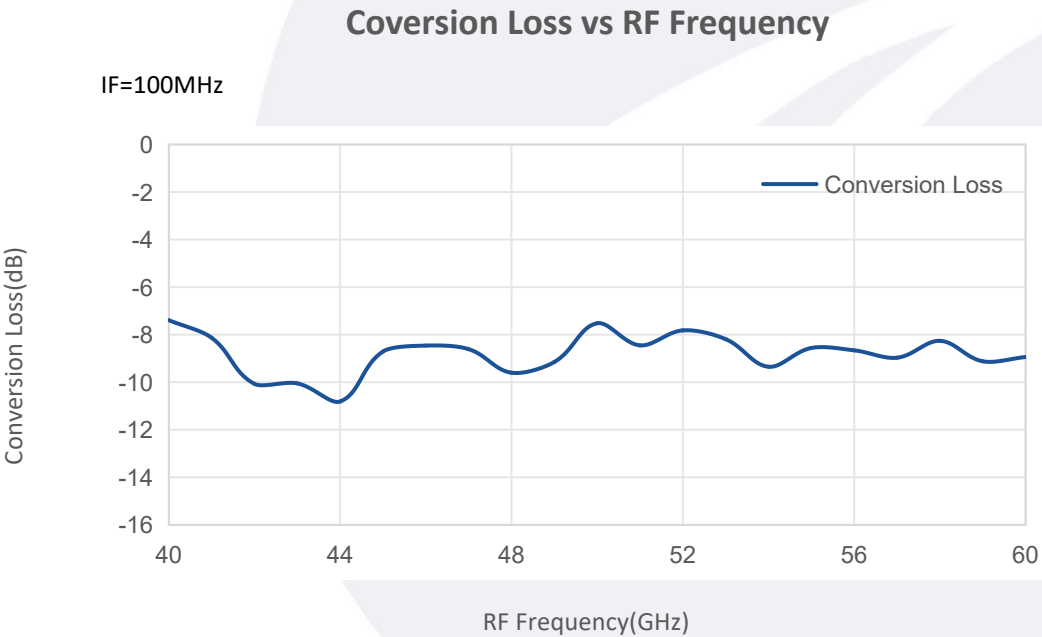
温度环境 Environmental Conditions:

参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	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-040060-0820-19-L	U-band Active Tx/Rx Converter, Conversion Loss:-10dB,WR-19/UG-383/U	Rev.1.1

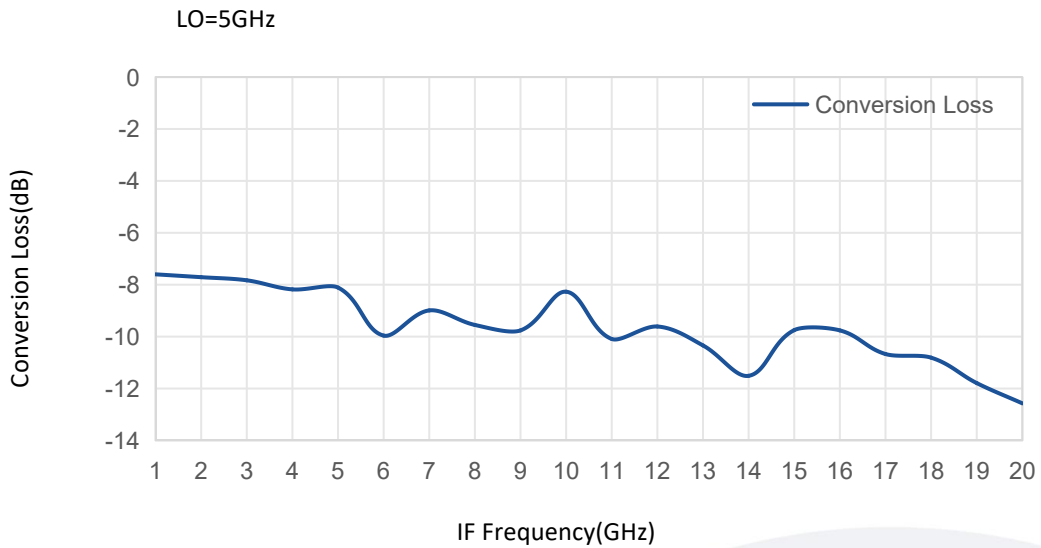
典型曲线 Typical Performance Data:



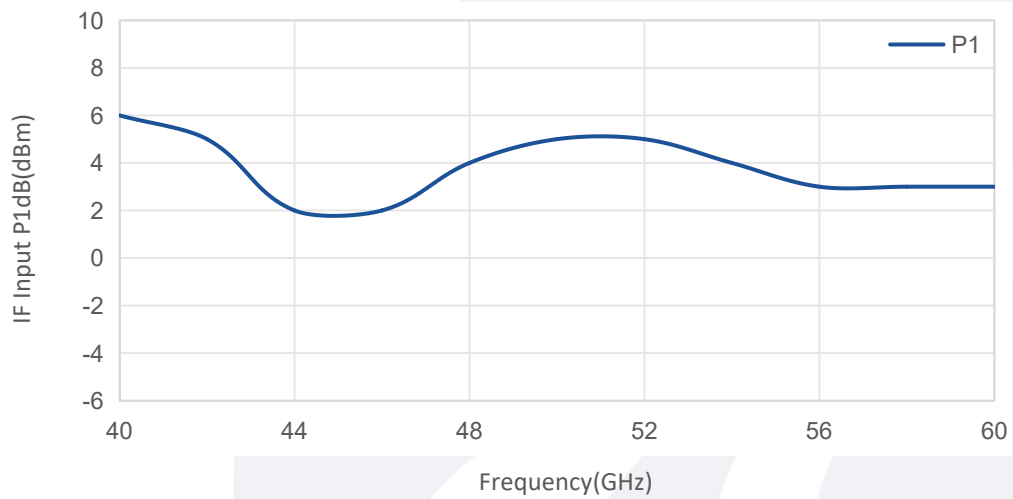
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

典型曲线 Typical Performance Data:

Conversion Loss vs IF Frequency

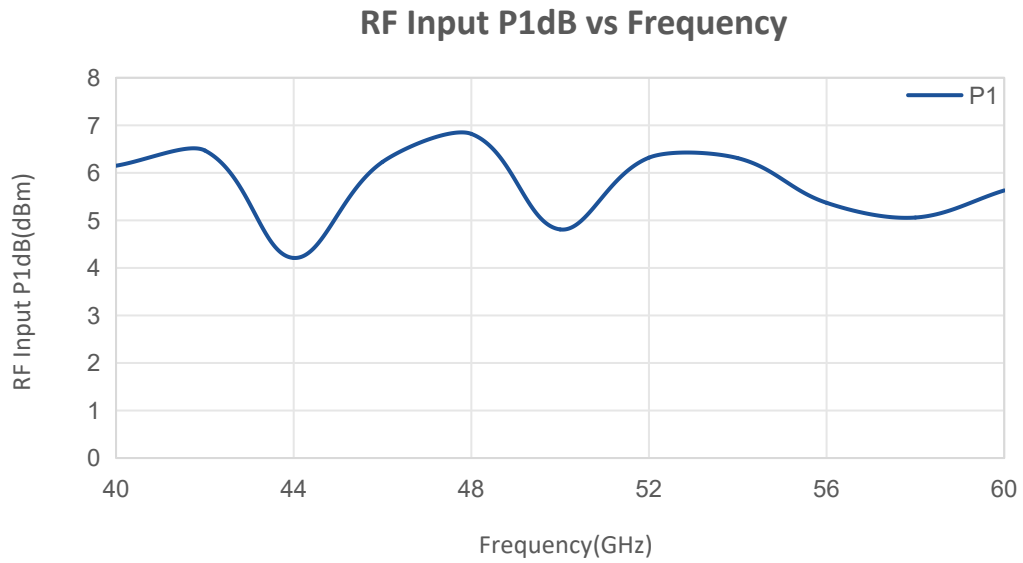


IF Input P1dB vs Frequency



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