

U-Band 4th Harmonic Mixer

RF:40-60 GHz/LO:10-15 GHz/IF:DC-1.5 GHz

Model: TLHM-4060-04-19

TLHM-4060-04-19 is a U-Band 4th harmonic mixer. The mixer supports the full waveguide band operation for LO frequency from 10 to 15 GHz and RF frequency from 40 to 60 GHz with an extremely broad IF output from DC to 1.5 GHz. The mixer offers a conversion loss of 12 dB typical and LO input power of 15 dBm typical.

Features:

- Low LO Power Requirement
- Subharmonic mixer
- Compact Package

Applications:

- Radar Systems
- Communication Systems
- Test Equipment

电气特性 Electrical Characteristics:

参数 Parameter	Min	Typ	Max	单位 Units
RF频率 RF Frequency	40		60	GHz
RF输入功率 RF Input Power			0	dBm
LO频率 LO Frequency	10		15	GHz
IF频率 IF Frequency	DC		1.5	GHz
LO 驱动功率 LO-Input power		15		dBm
变频损耗 Conversion Loss	-16	-12	-9	dB
谐波次数 Harmonic Order		4		

机械特性 Mechanical Specifications:

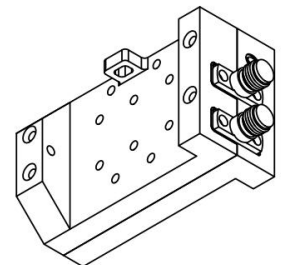
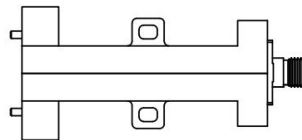
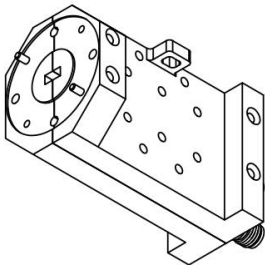
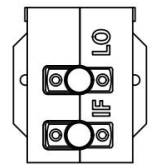
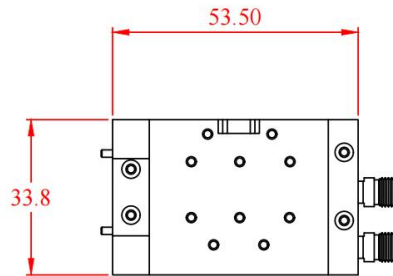
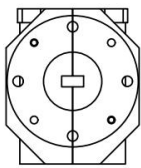
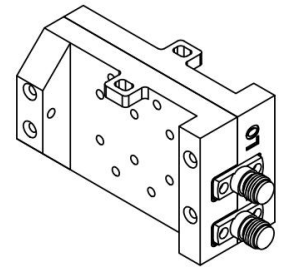
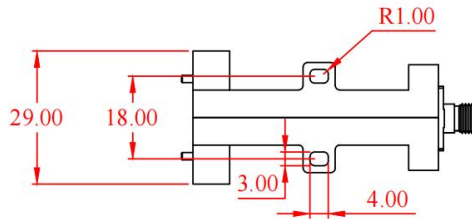
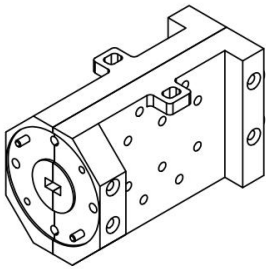
参数 Parameter	指标 Value	单位 Units
RF 接口 RF Connector	WR-19/UG-383/U	
LO 接口 LO Connector	SMA Female	
IF 接口 IF Connector	SMA Female	
尺寸 Size	54*34*23	mm
重量 Weight	200	g

绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
RF 功率 RF Input Power	0 dBm
IF 功率 IF Input Power	TBD
LO 功率 LO Input Power	TBD
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.

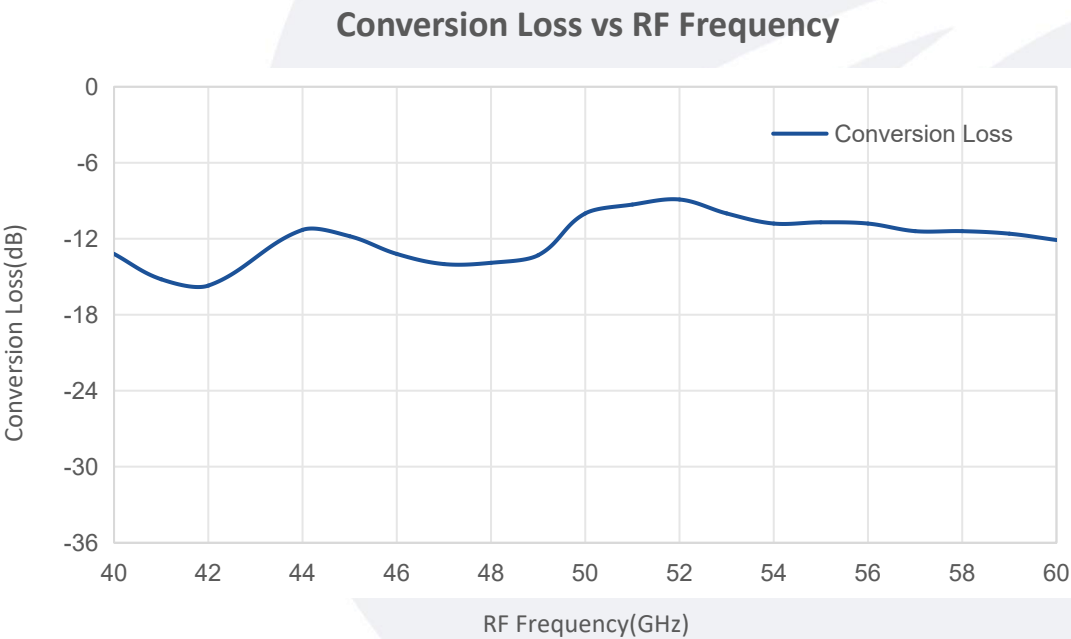
温度环境 Environmental Conditions:

参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	-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
TLHM-4060-04-19	U-Band Subharmonic Mixer RF:40-60GHz,LO:10-15GHz,IF:DC-1.5GHz	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.