

Y-Band Subharmonic Mixer

RF:170-260 GHz/LO:85-130 GHz/IF:DC-40 GHz

Model: TLHM-170260-0240-04

TLHM-170260-0240-04 is a Y-Band subharmonic mixer. The mixer supports the full waveguide band operation for LO frequency from 85 to 130 GHz and RF frequency from 170 to 260 GHz with an extremely broad IF output from DC to 40 GHz. The mixer offers a conversion loss of 10 dB typical and LO input power of 8 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	170		260	GHz
LO频率 LO Frequency	85		130	GHz
IF频率 IF Frequency	DC		40	GHz
LO驱动功率 LO-Input power	6	8	10	dBm
射频输入驻波 RF Input VSWR		3		:1
单边带变频损耗 SSB Conversion Loss		-10		dB

机械特性 Mechanical Specifications:

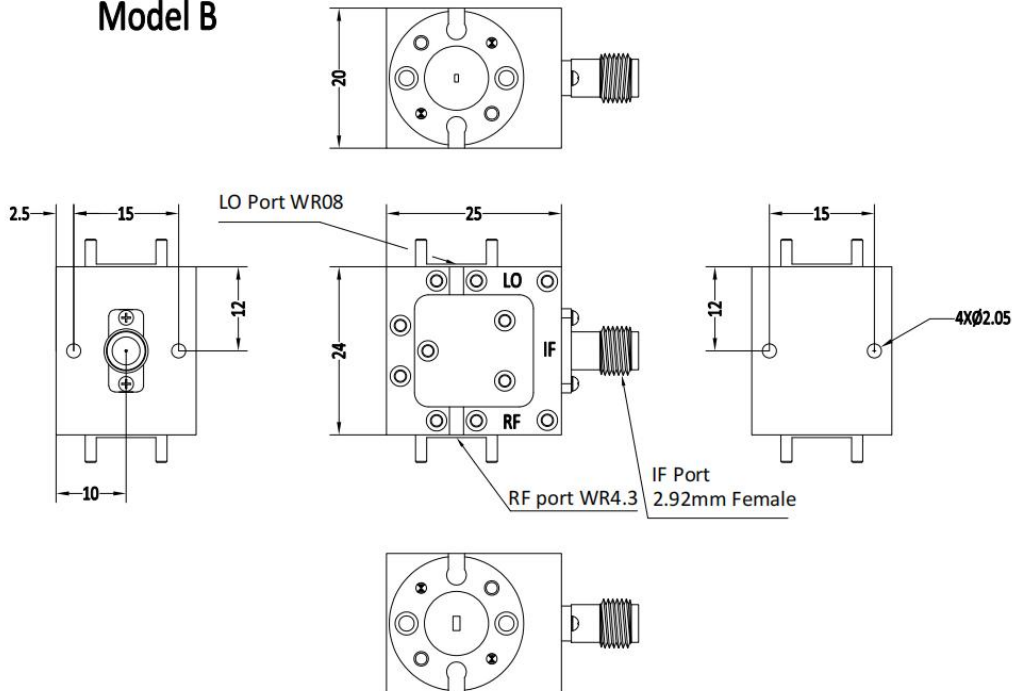
参数 Parameter	指标 Value	单位 Units
RF接口 RF Connector	WR-4.3/UG-387/U	
LO接口 LO Connector	WR-08/UG-387/U	
IF接口 IF Connector	2.92mm Female	
尺寸 Size	Model A: TBD Model B: 25*24*20	mm

绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
RF 功率 RF Input Power	0 dBm
LO 功率 LO Input Power	11 dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V

外形图 Outline Drawing: Unit:mm

Model B



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

温度环境 Environmental Conditions:

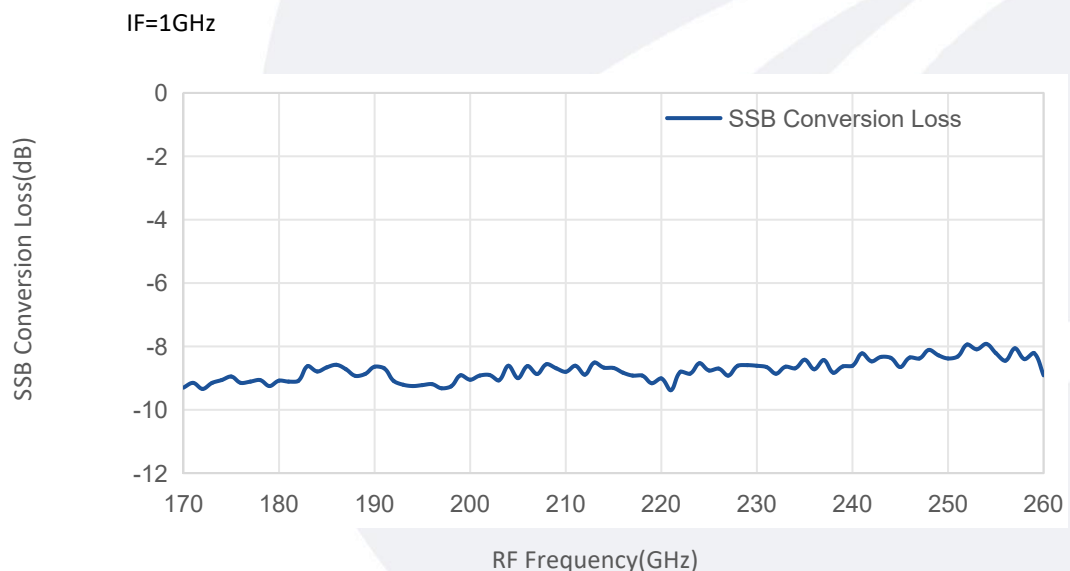
参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	-10		+65	°C
存储温度 Non-operating Temperature	-45		+85	°C
相对湿度 Relative humidity		95		%
海拔 Altitude	10,000			feet
震动 Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
冲击 Shock(non operating)	20G for 11msc half 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
TLHM-170260-0240-04-A	Y-Band Subharmonic Mixer, TBD RF:170-260GHz,LO:85-130GHz,IF:DC-40GHz	Rev.1.1
TLHM-170260-0240-04-B	Y-Band Subharmonic Mixer, 25*24*20mm RF:170-260GHz,LO:85-130GHz,IF:DC-40GHz	Rev.1.1

典型曲线 Typical Performance Data:

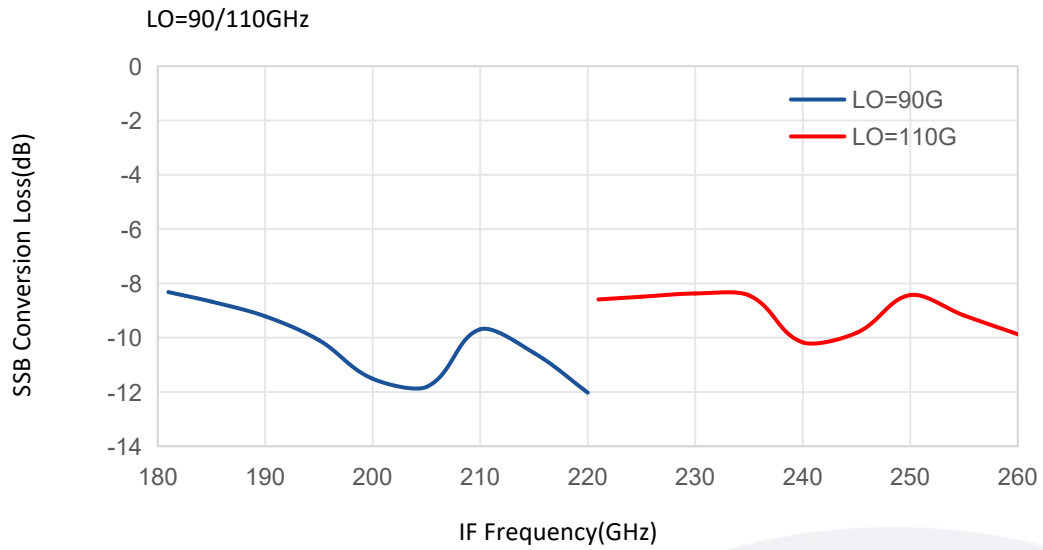
SSB Conversion Loss vs RF Frequency



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.

典型曲线 Typical Performance Data:

SSB Conversion Loss vs IF 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.