泰莱微波 Talent Microwave

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Waveguide Sub-Harmonic Mixer

RF:220-325GHz/LO:110-165GHz/IF:DC-35GHz Model: TLHM-220325-0235-03

TLHM-220325-0235-03 is a Waveguide Sub-Harmonic Mixer. The mixer supports the wide waveguide band operation for LO frequency from 110 to 165 GHz and RF frequency from 220 to 325 GHz with an extremely broad IF output from DC to 35 GHz. The mixer offers a conversion loss of 13 dB typical@IF=1GHz and LO input power of 7 dBm typical.

Features:

- RF Frequency range: 220-325GHz
- LO Frequency range: 110-165GHz
- IF Frequency range: DC-35GHz
- Low LO Power Requirement
- Subharmonic mixer

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	220		325	GHz
LO频率 LO Frequency	110		165	GHz
LO驱动功率 LO-Input power		7		dBm
IF频率 IF Frequency	DC		35	GHz
变频损耗 Conversion Loss		13		dB

机械特性 Mechanical Specifications:

参数 Parameter	指标 Value	单位 Units
RF接口 RF Connector	WR-3.4/UG-387/U	
LO接口 LO Connector	WR-6.5/UG-387/U	
IF接口 IF Connector	2.92mm Female	
尺寸 Size	19.1*19.1*19.1	mm

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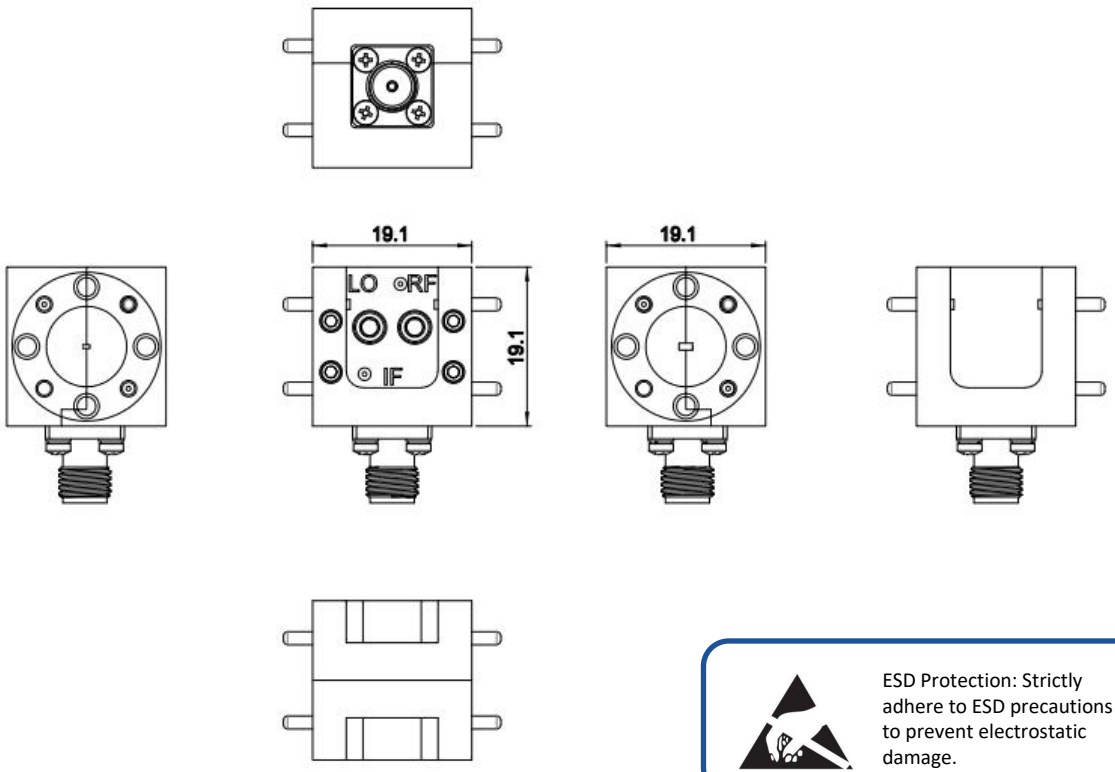
绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
RF功率 RF Input Power	0 dBm
LO功率 LO Input Power	+10 dBm
IF功率 IF Input Power	0 dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V

外形图 Outline Drawing:

Unit:mm; Tolerance:±0.1mm



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

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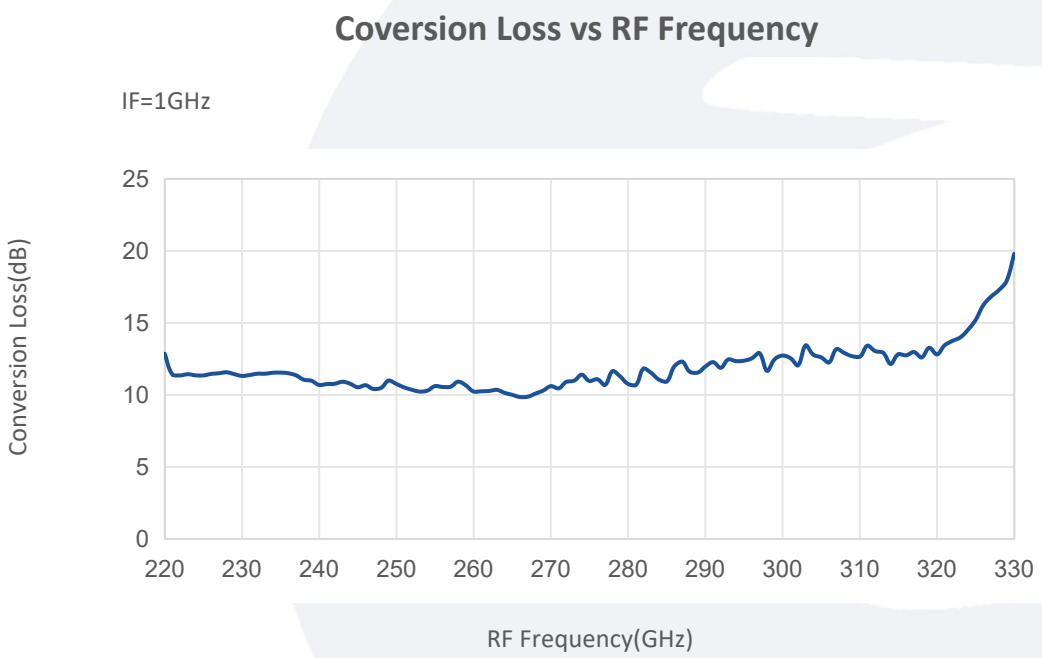
温度环境 Environmental Conditions:

参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	-20		+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-220325-0235-03	Waveguide Sub-Harmonic Mixer RF:220-325GHz,LO:110-165GHz,IF:DC-35GHz	Rev.1.0

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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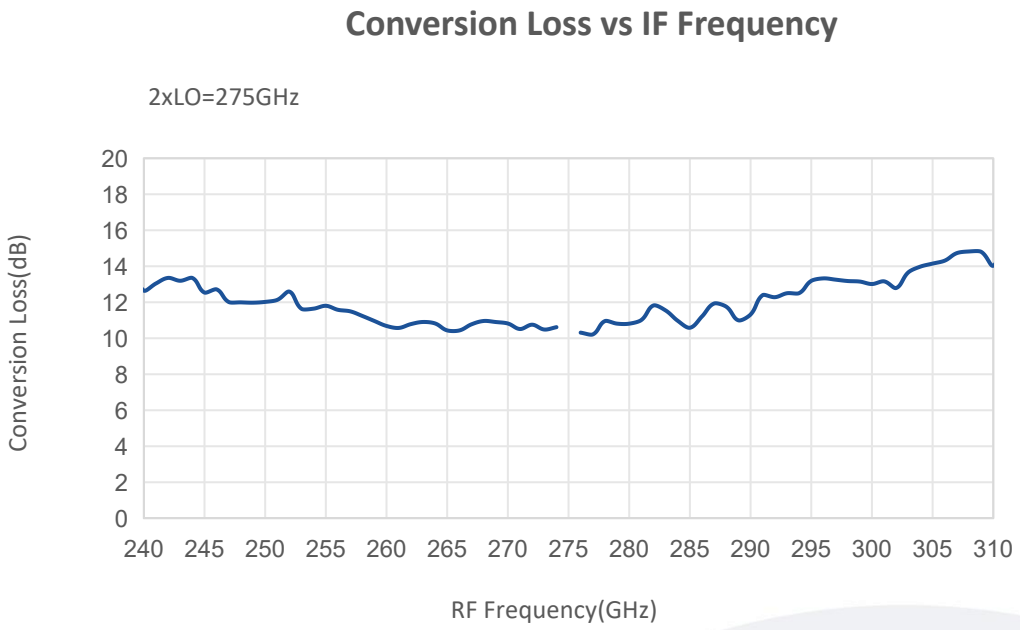

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