泰莱微波 Talent Microwave

Suzhou Talent Microwave,Inc
sales@talentmw.com
www.talentmw.com

D-Band Sub-Harmonic Mixer

RF:110-170 GHz/LO:55-90 GHz/IF:DC-20 GHz Model: TLHM-110170-0220-06

TLHM-110170-0220-06 is a D-Band Sub-Harmonic mixer. The mixer supports the full waveguide band operation for LO frequency from 55 to 90 GHz and RF frequency from 110 to 170 GHz with an extremely broad IF output from DC to 20 GHz. The mixer offers a conversion loss of 11 dB typical@IF=1GHz and LO input power of 16 dBm typical. The X6 multiplier of Talent model TMAM-057095-0616-12 can be used as the LO driver for this mixer.

Features:

- RF Frequency range: 110-170GHz
- LO Frequency range: 55-90GHz
- IF Frequency range: DC-20GHz
- Low LO Power Requirement
- Subharmonic mixer
- Suggested LO drive model: TMAM-057095-0616-12

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	110		170	GHz
LO频率 LO Frequency	55		90	GHz
IF频率 IF Frequency	DC		20	GHz
LO驱动功率 LO-Input power		16		dBm
RF输入P1dB RF Input P1dB		0		dBm
IF射频输入P1dB IF Input P1dB		0		dBm
单边带变频损耗 SSB Conversion Loss@IF=1GHz		11		dB
单边带变频损耗 SSB Conversion Loss@LO=55GHz		12		dB
偏置电压 Bias Voltage	-1.5	-0.8	0	V DC

Suzhou Talent Microwave,Inc
sales@talentmw.com
www.talentmw.com

机械特性 Mechanical Specifications:

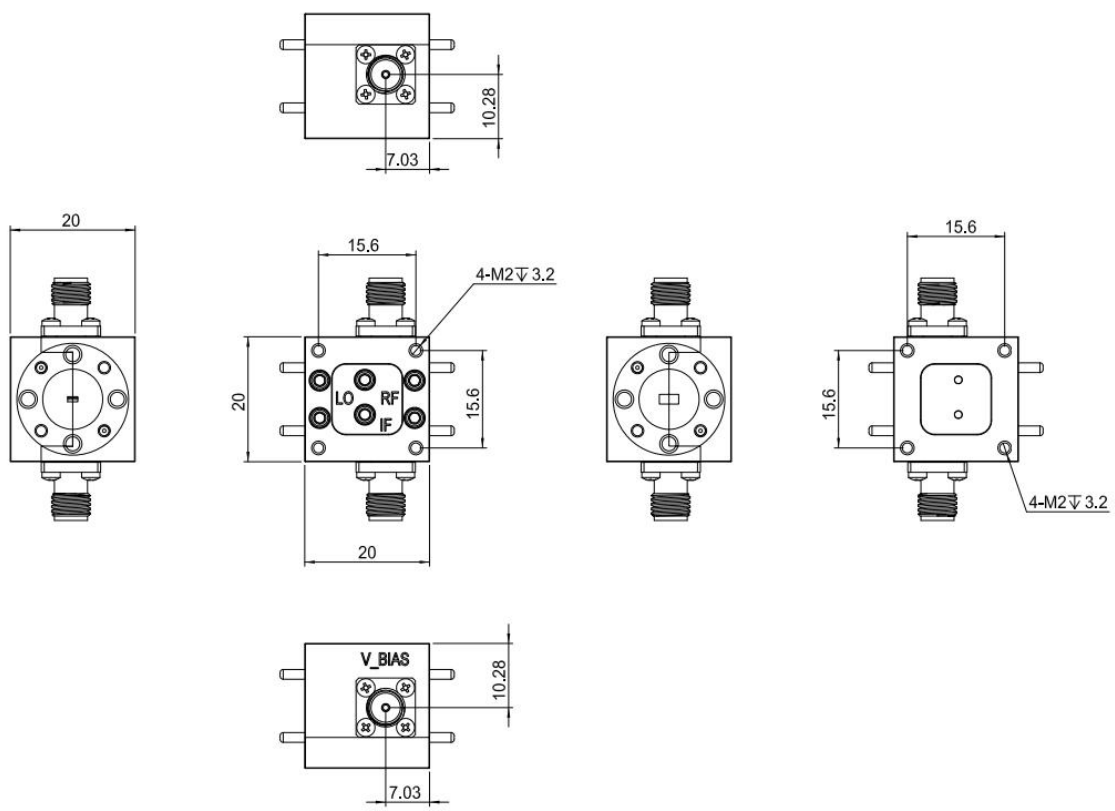
参数 Parameter	指标 Value	单位 Units
RF 接口 RF Connector	WR-6.5/UG-387/U	
LO 接口 LO Connector	WR-12/UG-387/U	
IF 接口 IF Connector	SMA Female	
偏置电压接口 Bias Voltage Connector	SMA Female	
尺寸 Size	20*20*20	mm

绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
RF 功率 RF Input Power	13 dBm
IF 功率 IF Input Power	13 dBm
LO 功率 LO Input Power	20 dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V

外形图 Outline Drawing:

Unit:mm; Tolerance:±0.1mm



Suzhou Talent Microwave,Inc
sales@talentmw.com
www.talentmw.com

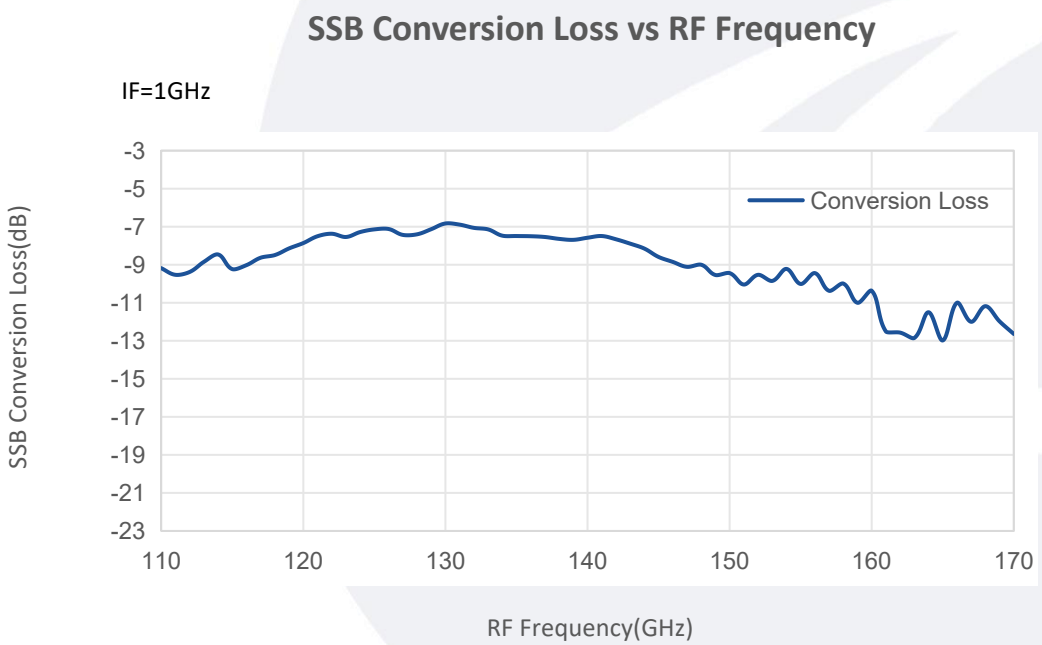
温度环境 Environmental Conditions:

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-110170-0220-06	D-Band Sub-Harmonic Mixer RF:110-170GHz,LO:55-90GHz,IF:DC-20GHz	Rev.1.1

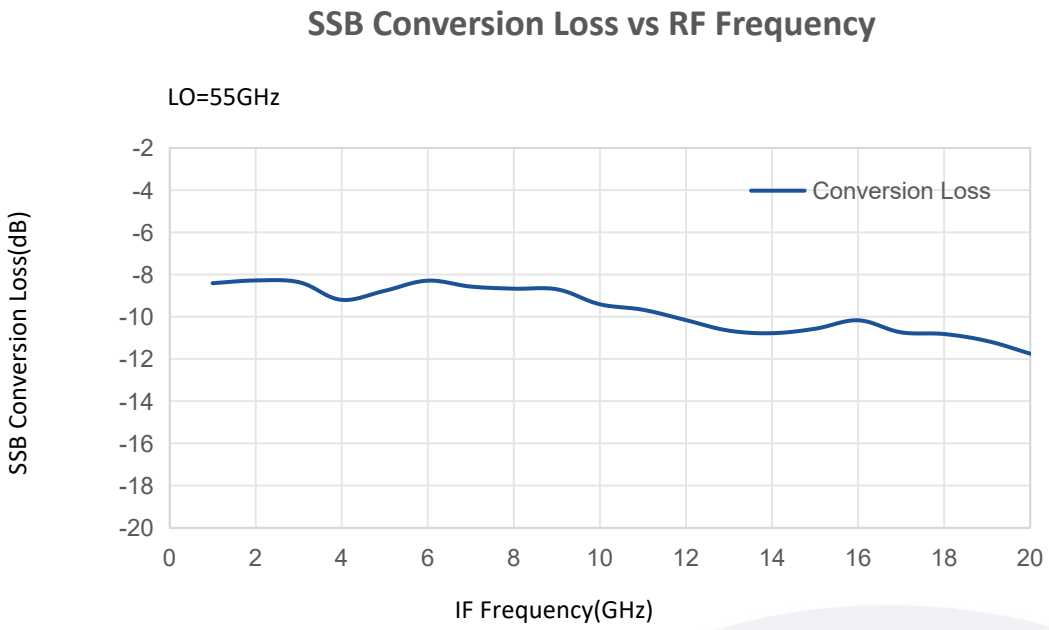
典型曲线 Typical Performance Data:



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.

Suzhou Talent Microwave,Inc
sales@talentmw.com
www.talentmw.com

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.