泰莱微波
Talent Microwave

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

IQ Mixer

RF:50-75GHz/LO:50-75GHz/IF:DC-18GHz　　Model: TMIQ-5075-18-15

TMIQ-5075-18-15 is an ultra-broadband IQ mixer spanning 50 to 75 GHz on the RF and LO ports with an IF from DC to 18 GHz. The IQ mixer offers a conversion loss of 14 dB typical and LO input power of 17 dBm typical. The IF port configuration is a female SMA connector and the RF and LO port are WR-15 waveguide with a UG-385/U-M anti-cocking flange.The V-band,X6 multiplier of Talent model TMAM-050075-0615-15 can be used as the LO driver for this mixer.

Features:

- RF/LO coverage : 50-75 GHz
- IF operation : DC-18 GHz
- Conversion loss: 14dB Typ
- LO input power : 17dBm Typ
- Image Rejection : 20dBc Typ
- Suggested LO drive model: TMAM-050075-0615-15

Applications:

- Single Sideband and Image Rejection Mixing
- IQ Modulation / Demodulation
- Vector Amplitude Modulation
- Band Shifting

电气特性 Electrical Characteristics:

参数 Parameter	Min	Typ	Max	单位 Units
RF频率 RF Frequency	50		75	GHz
LO频率 LO Frequency	50		75	GHz
LO驱动功率 LO-Input power	15	17	20	dBm
IF频率 IF Frequency	DC		18	GHz
变频损耗 Conversion Loss		14	17	dB
IF输入P1dB压缩点 IF Input 1dB Gain Compression Point		-5		dBm
I/Q幅度一致性 I/Q Amplitude consistency		±1		dB
I/Q相位一致性 I/Q Phase consistency		±1.5		°
LO to RF 隔离 LO to RF Isolation		20		dB
LO to IF 隔离 LO to IF Isolation		30		dB
RF to IF 隔离 RF to IF Isolation		25		dB

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机械特性 Mechanical Specifications:

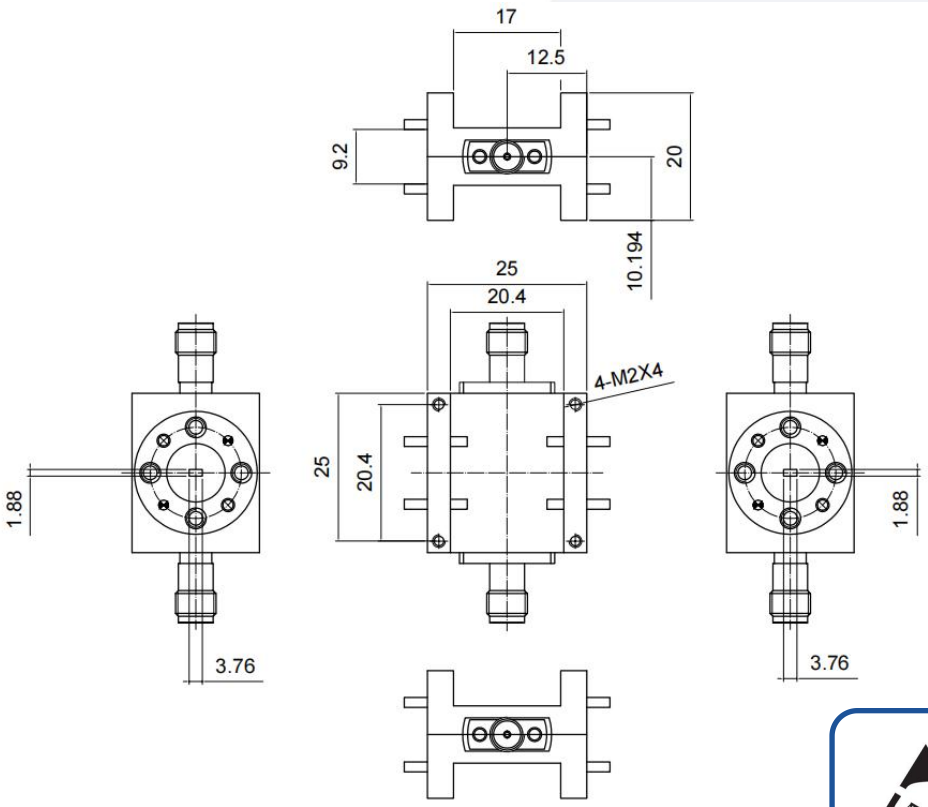
参数 Parameter	指标 Value	单位 Units
RF接口 RF Connector	WR-15/UG-385/U	
LO接口 LO Connector	WR-15/UG-385/U	
IF接口 IF Connector	SMA Female	
尺寸 Size	25*25*20	mm

绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
所有接口输入功率 Power Handling,at any Port	+25 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	-45		+85	℃
存储温度 Non-operating Temperature	-55		+100	℃
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
TMIQ-5075-18-15	Image Rejection or I/Q Mixer RF:50-75GHz,LO:50-75GHz,IF:DC-18GHz	Rev.1.0