

Active Tx/Rx Converter

WR-3.4/220-310GHz/14dB Conversion Loss

Model: TLAMCM-220310-1240-03

TLAMCM-220310-1240-03 is an up and down sub-harmonics mixer integrated with x6 active frequency multiplier chain. The converter has an input LO frequency of 18.33 to 25.84 GHz with a typical input power of 0 dBm. RF frequency can range from 220 to 310 GHz and IF port can range from DC to 40GHz with 2.4mm connector.

Features:

- RF Frequency: 220-310GHz
- LO Frequency: 18.33-25.84GHz
- IF Frequency: DC-40GHz
- Low Conversion Loss

Applications:

- Test Equipment
- Radar System
- Defense & federal communications
- Instrumentations

电气特性 Electrical Characteristics:

参数 Parameter	Min	Typ	Max	单位 Units
RF频率 RF Frequency	220		310	GHz
12XLO频率 12XLO Frequency	220		310	GHz
LO频率 LO Frequency	18.33		25.84	GHz
IF频率 IF Frequency	DC		40	GHz
LO驱动功率 LO-Input power	3	5	7	dBm
LO倍频次数 LO Multiplier factor		12		
变频损耗 Conversion Loss		14		dB
输入P1dB Input P1dB		0		dBm
直流电压 DC Supply Voltage		12		V DC
直流电流 DC Supply Current		680		mA

机械特性 Mechanical Specifications:

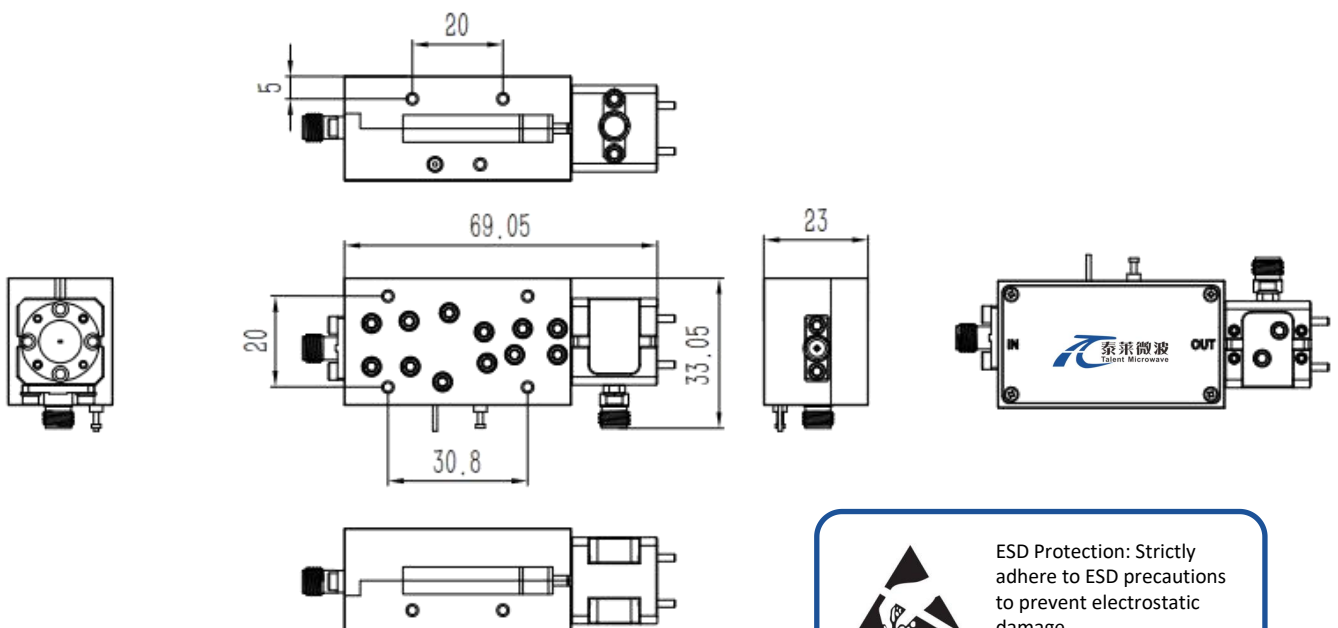
参数 Parameter	指标 Value	单位 Units
RF接口 RF Connector	WR-3.4/UG-387/U	
LO接口 LO Connector	SMA Female	
IF接口 IF Connector	2.4mm Female	
尺寸 Size	69.05*33.05*23	mm

绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
RF输入功率 RF Input Power	5 dBm
LO输入功率 LO Input Power	10 dBm
IF输入功率 IF Input Power	5 dBm
直流电压 DC Supply Voltage	+15 V
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.

温度环境 Environmental Conditions:

参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	0		+50	°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
TLAMCM-220310-1240-03	Active Tx/Rx Converter, Conversion Loss: 14dB, WR-3.4/UG-387/U	Rev.1.0