

12th Harmonic Mixer

RF:90-140 GHz/IF:DC-2 GHz

Model: TLHM-090140-12-08

TLHM-090140-12-08 is a F-Band 12th Harmonic mixer. The mixer supports the full waveguide band operation for RF frequency from 90 to 140 GHz and LO frequency from 7.5 to 11.66 GHz with IF output from DC to 2 GHz. The mixer offers a conversion loss of 30 dB typical and LO input power of 15 dBm typical.

Features:

- Full Waveguide Band Operation
- Calibrated for 12th Harmonic Detection
- 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	90		140	GHz
RF输入功率 RF Input Power			0	dBm
IF 频率 IF Frequency	DC		2	GHz
谐波次数 Harmonic order		12		
LO频率 LO Frequency	7.5		11.66	GHz
LO驱动功率 LO-Input power	13	15	16	dBm
变频损耗 Conversion Loss	25	30	40	dB

机械特性 Mechanical Specifications:

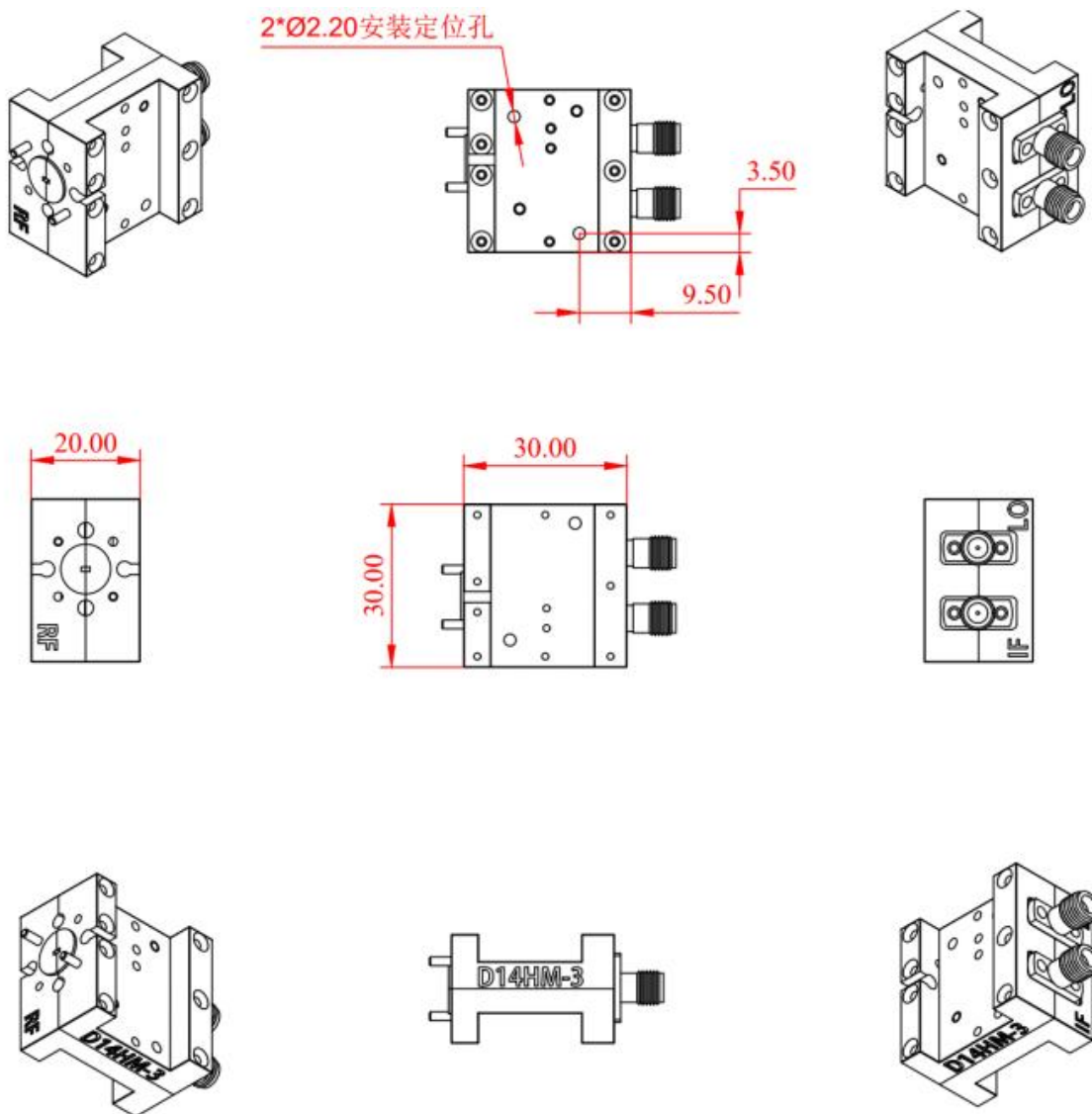
参数 Parameter	指标 Value	单位 Units
RF接口 RF Connector	WR-08/UG-387	
LO接口 LO Connector	SMA Female	
IF接口 IF Connector	SMA Female	
尺寸 Size	30*30*20	mm
重量 Weight	100	g

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	16 dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V

外形图 Outline Drawing:

Unit:mm



温度环境 Environmental Conditions:

参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	-20		+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
TLHM-090140-12-08	F-band 12th Harmonic Mixer RF:90-140GHz,LO:7.5-11.66GHz,IF:DC-2GHz	Rev.1.1