

Active Tx/Rx Converter

RF:37-65 GHz/LO:9.25-16.25 GHz/IF:DC-20 GHz

Model: TLAMCM-037065-20-V

TLAMCM-037065-20-V is an up and down fundamental mixer integrated with x4 active frequency multiplier chain. The converter has an input LO frequency of 9.25 to 16.25 GHz with a typical input power of +13 dBm. RF frequency can range from 37 to 65 GHz and IF port can range from DC to 20GHz with 2.92mm connector. The DC power requirement for the multiplier is +5 V DC.

Features:

- RF coverage : 37-65GHz
- LO coverage : 9.25-16.25GHz
- IF operation : DC-20GHz
- Conversion loss: -10dB Typ
- High LO to RF isolation
- Fundamental Mixer

Applications:

- Defense & federal communications
- Instrumentations

电气特性 Electrical Characteristics:

参数 Parameter	Min	Typ	Max	单位 Units
RF频率 RF Frequency	37		65	GHz
LO频率 LO Frequency	9.25		16.25	GHz
IF频率 IF Frequency	DC		20	GHz
LO 驱动功率 LO-Input power	10	13	15	dBm
LO倍频次数 LO Multiplier factor		4		
变频损耗 Conversion Loss(IF=100MHz)		-10	-16	dB
中频输入P1dB IF Input P1dB		8		dBm
LO to IF隔离 LO to IF Isolation		-60		dBc
直流电压 DC Supply Voltage		5		V DC
直流电流 DC Supply Current		500		mA

机械特性 Mechanical Specifications:

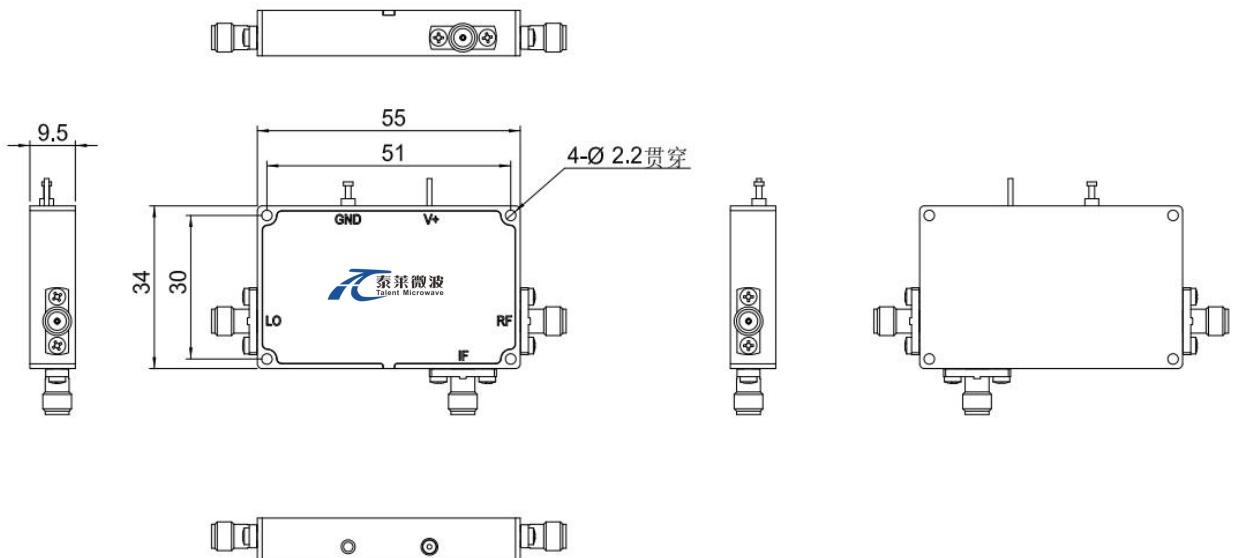
参数 Parameter	指标 Value	单位 Units
RF 接口 RF Connector	1.85mm Female	
LO 接口 LO Connector	SMA Female	
IF 接口 IF Connector	2.92mm Female	
尺寸 Size	55*34*9.5	mm
重量 Weight	/	g

绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
RF输入功率 RF Input Power	20 dBm
LO输入功率 LO Input Power	23 dBm
IF输入功率 IF Input Power	15 dBm
直流电压 DC Supply Voltage	+9 V
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	-10		+65	°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-037065-20-V	Active Tx/Rx Converter, RF:37-65GHz,LO:9.25-16.25GHz,IF:DC-20GHz	Rev.1.1