

D-Band IQ-subharmonic Mixer

RF:130-150 GHz/LO:65-75 GHz/IF:DC-20 GHz

Model: TMIQ-130150-0220-06

TMIQ-130150-0220-06 a subharmonic IQ mixer in the 130-150 GHz frequency band suitable for D-band point-to-point communication, instrumentation, sensing, security and high resolution imaging applications. The mixer has high image rejection, low input/output return loss and flat conversion response.

Features:

- Low LO Power Requirement
- Subharmonic Mixing
- Compact Package

Applications:

- Communication Systems
- Test Equipment

电气特性 Electrical Characteristics:

参数 Parameter	Min	Typ	Max	单位 Units
RF频率 RF Frequency	130		150	GHz
LO频率 LO Frequency	65		75	GHz
IF频率 IF Frequency	DC		20	GHz
LO 驱动功率 LO-Input power	8	10	12	dBm
IQ 变频损耗 IQ Conversion Loss		-12	-15	dB
I/Q幅度平衡 I/Q Amplitude Balance		±0.6		dB
I/Q相位平衡 I/Q Phase Balance		±4		°
RF 驻波 RF VSWR		1.5		:1
LO 驻波 LO VSWR		3.0		:1

机械特性 Mechanical Specifications:

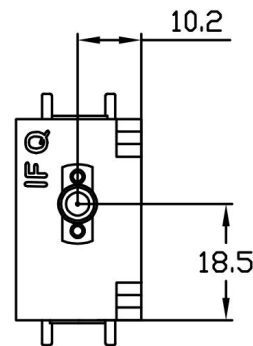
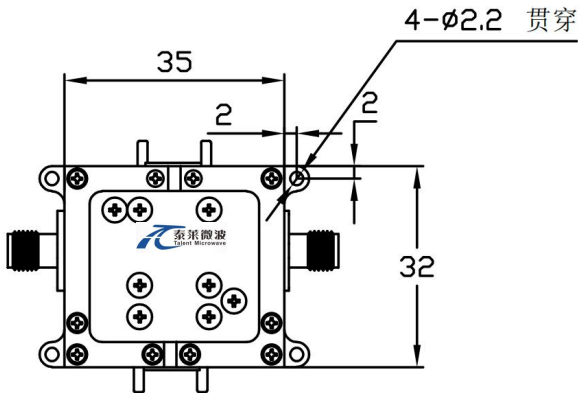
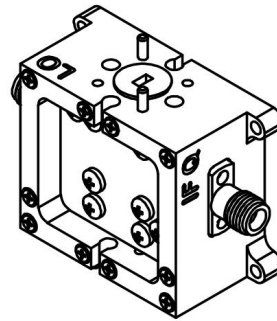
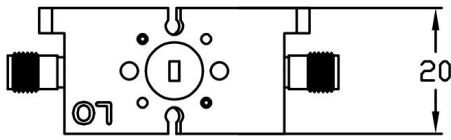
参数 Parameter	指标 Value	单位 Units
RF 接口 RF Connector	WR-06/UG-387/U	
LO 接口 LO Connector	WR-12/UG-387/U	
IF 接口 IF Connector	2.92mm Female	
尺寸 Size	35*32*20	mm

绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
RF 功率 RF Input Power	0 dBm
IF 功率 IF Input Power	0 dBm
LO功率 LO Input Power	+13 dBm
ESD灵敏度 ESD sensitivity (HBm)	TBD

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 Desciption	版本号 Revision
TMIQ-130150-0220-06	D-Band IQ-subharmonic Mixer RF:130-150 GHz/LO:65-75 GHz/IF:DC-20 GHz	Rev.1.1