

E-Band IQ-Fundamental mixer

RF:60-90 GHz/LO:60-90 GHz/IF:DC-20 GHz

Model: TMIQ-060090-20-12

TMIQ-060090-20-12 is a fundamental IQ mixer in the 60-90 GHz frequency band suitable for E-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:

- RF/LO coverage : 60-90 GHz
- IF operation : DC-20 GHz
- LO power: 16dBm Min.
- Conversion loss: 12dB

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	60		90	GHz
LO频率 LO Frequency	60		90	GHz
IF频率 IF Frequency	DC		20	GHz
LO驱动功率 LO-Input power	16			dBm
变频损耗 Conversion Loss		12		dB
镜频抑制 Image Rejection		30		dBc

机械特性 Mechanical Specifications:

参数 Parameter	指标 Value	单位 Units
RF接口 RF Connector	WR-12/UG-387/U	
LO接口 LO Connector	WR-12/UG-387/U	
IF接口 IF Connector	2.92mm Female	
尺寸 Size	TBD	mm
重量 Weight	TBD	g
材质 Material	Cu	

绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
RF 功率 RF Input Power	30 dBm
IF 功率 IF Input Powe	30 dBm
LO 功率 LO Input Powe	30 dBm
ESD 灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V

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
TMIQ-060090-20-12	E-Band IQ-Subharmonic Mixer RF:60-90GHz,LO:60-90GHz,IF:DC-20GHz	Rev.1.1