

Ka-band Fundamental Mixer

RF:27-40 GHz/LO:27-40 GHz/IF:DC-10 GHz

Model: TLBM-027040-10-28

TLBM-027040-10-28 is a Ka-Band balance mixer. The mixer supports the full waveguide band operation for both LO and RF frequency from 27 to 40 GHz with an extremely broad IF output from DC to 10 GHz. The mixer offers a conversion loss of 8 dB typical and LO input power of 15 dBm typical.

Features:

- Low LO Power Requirement
- Subharmonic Mixing
- 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	27		40	GHz
LO频率 LO Frequency	27		40	GHz
IF频率 IF Frequency	DC		10	GHz
LO驱动功率 LO Input Power		15		dBm
变频损耗 Conversion Loss@IF=100MHz		8		dB
变频损耗 Conversion Loss@LO=27GHz		9		dB
中频输入P1dB IF Input P1dB		11		dBm
射频输入P1dB RF Input P1dB		11		dBm
RF至IF隔离度 RF to IF Isolation		35		dB
RF至LO隔离度 RF to LO Isolation		45		dB
LO至IF隔离度 LO to IF Isolation		30		dB

机械特性 Mechanical Specifications:

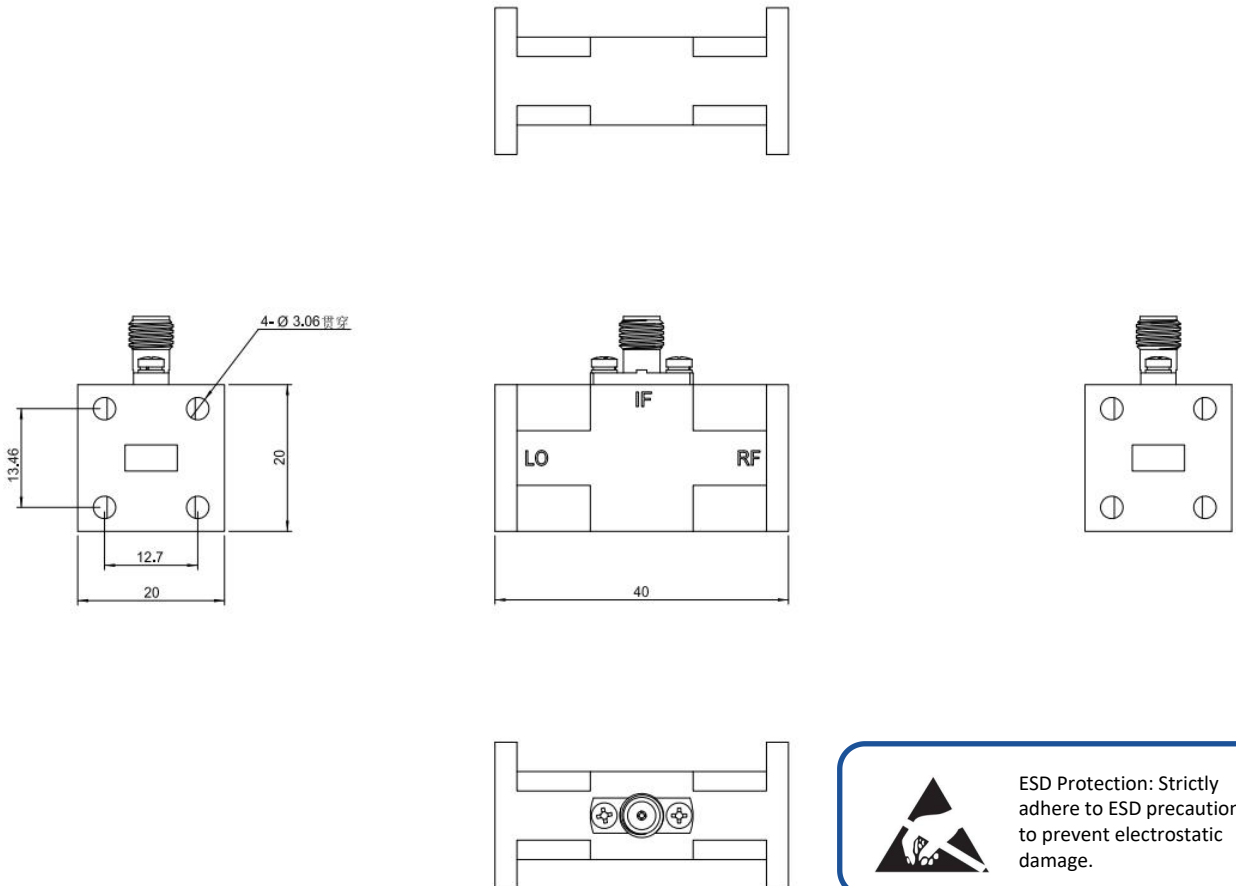
参数 Parameter	指标 Value	单位 Units
RF 接口 RF Connector	WR-28/UG-599	
LO 接口 LO Connector	WR-28/UG-599	
IF 接口 IF Connector	SMA Female	
尺寸 Size	40*20*20	mm

绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
RF输入功率 RF Input Power	24 dBm
LO输入功率 LO Input Power	24 dBm
IF输入功率 IF Input Power	24 dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V

外形图 Outline Drawing:

Unit:mm; Tolerance:±0.1mm



温度环境 Environmental Conditions:

参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	-20		+70	℃
存储温度 Non-operating Temperature	-65		+150	℃
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
TLBM-027040-10-28	Ka-band Fundamental Mixer RF:27-40GHz,LO:27-40GHz,IF:DC-10GHz	Rev.1.0