

Passive Frequency Multiplier

1.0mm/X2/40-120GHz/0dBm Output Power

Model: TLPM-040120-0200-1.0

TLPM-040120-0200-1.0 is a X2 passive multiplier that generates second order harmonics with good harmonic and fundamental suppression. This multiplier requires an input frequency range of 20 to 60 GHz at +13 dBm RF power to yield typical 0 dBm output power at 40 to 120 GHz. The input port configuration is 1.85mm connector and the output port is 1.0mm connector.

Features:

- Output Frequency: 40-120GHz
- Output Power: 0dBm Typ
- Low power consumption
- 50 Ohm Matched Input / Output

Applications:

- Frequency Extenders
- Source Modules

电气特性 Electrical Characteristics:

参数 Parameter	Min	Typ	Max	单位 Units
输出频率 Output Frequency	40		120	GHz
输入频率 Input Frequency	20		60	GHz
输入功率 Input Power	11	13	16	dBm
转换损耗 Conversion Loss		12	15	dB
倍频次数 Multiply Factor		2		
基波抑制 1st Harmonic Suppression		-30		dBc
3rd谐波抑制 3rd Harmonic Suppression		-40		dBc
4th谐波抑制 4th Harmonic Suppression		-15		dBc
基波隔离 1st Harmonic Isolation		-40		dBc
3rd谐波隔离 3rd Harmonic Isolation		-50		dBc
4th谐波隔离 4th Harmonic Isolation		-20		dBc

The value of harmonic isolation is compared to input power and harmonic suppression is compared to output power.

机械特性 Mechanical Specifications:

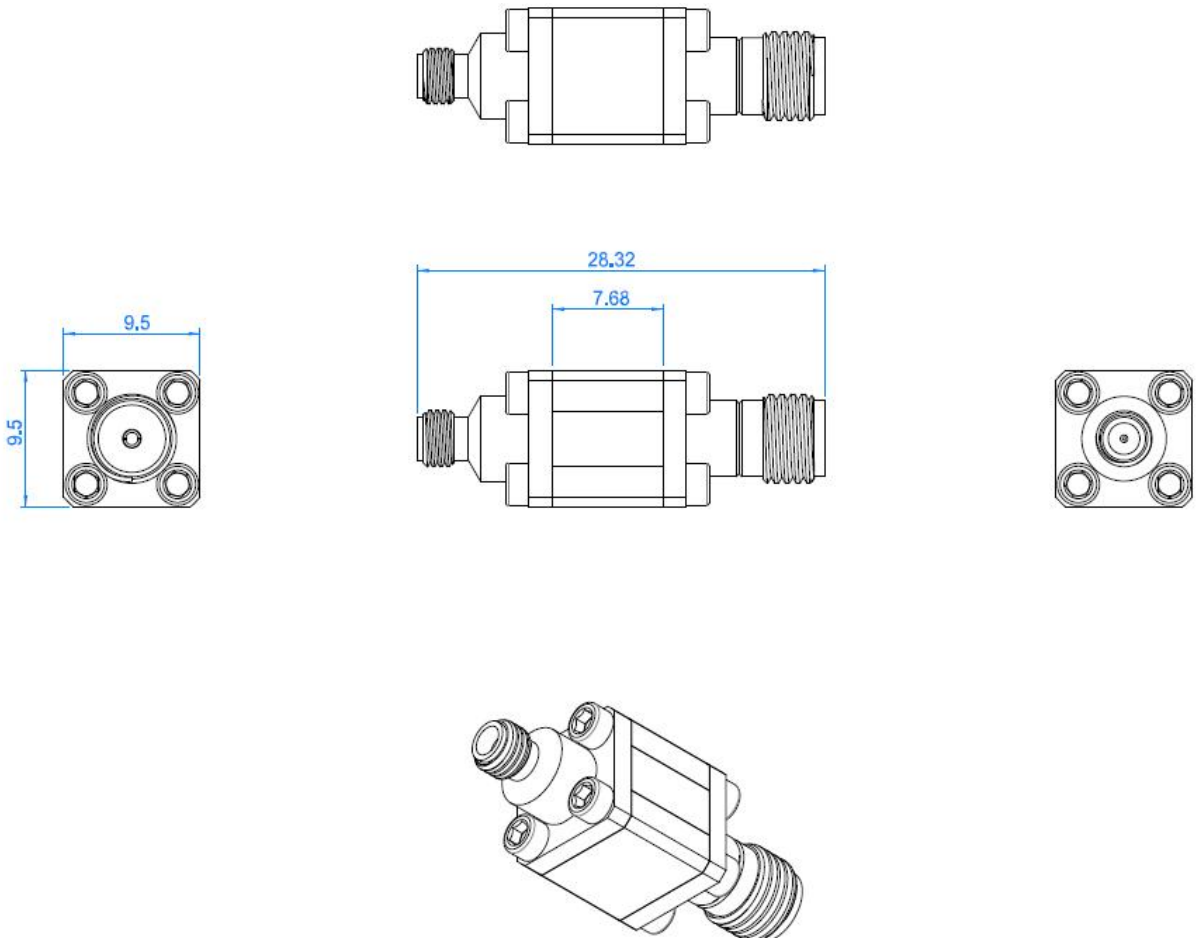
参数 Parameter	指标 Value	单位 Units
输出接口 Output Connector	1.0mm Female	
输入接口 Input Connector	1.85mm Female	
尺寸 Size	28.32*9.5*9.5	mm

绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
输入功率 RF Input Power	+25 dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V

外形图 Outline Drawing:

Unit:mm



ESD Protection: Strictly adhere to ESD precautions to prevent electrostatic damage.

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
TLPM-040120-0200-1.0	Passive Frequency Doubler X2,40-120GHz, 0dBm Output Power,1.0mm Female	Rev.1.1