Active Frequency Multiplier
X4/ 20-50GHz /+15dBm Output Power   Model: TLAM-2050-0415-K

TLAM-2050-0415-K is an active X4 frequency multiplier. The multiplier has an input frequency of 5 to 12.5 GHz with a typical input power of +15 dBm and an output frequency of 20 to 50 GHz with a typical output power of +15 dBm. The DC power requirement for the multiplier is +12 V DC/130 mA. The input/output port configuration is 2.4mm female connector.

Features:

- Output Frequency:20-50GHz
- Output Power :15dBm Typ
- Low power consumption
- 50 Ohm Matched Input / Output

Applications:

- Synthesizers
- Local oscillators

电气特性 Electrical Characteristics:

参数 Parameter	Min	Typ	Max	单位 Units
输出频率 Output Frequency	20		50	GHz
输出功率 Output Power		+15		dBm
输入频率 Input Frequency	5		12.5	GHz
输入功率 Input Power	+12	+15	+18	dBm
倍频次数 Multiply Factor		4		
3次谐波 3rd Harmonic		-20		dBc
供电电压 DC Voltage		+12	+15	V
供电电流DC Supply Current		130		mA

机械特性 Mechanical Specifications:

参数 Parameter	指标 Value	单位 Units
输出接口 Output Connector	2.4mm Female	
输入接口 Input Connector	SMA Female	
直流偏置 DC Bias	Solder Pin	

绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+15 V
输入功率 RF Input Power	+18 dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V

外形图 Outline Drawing:　　　Unit:mm
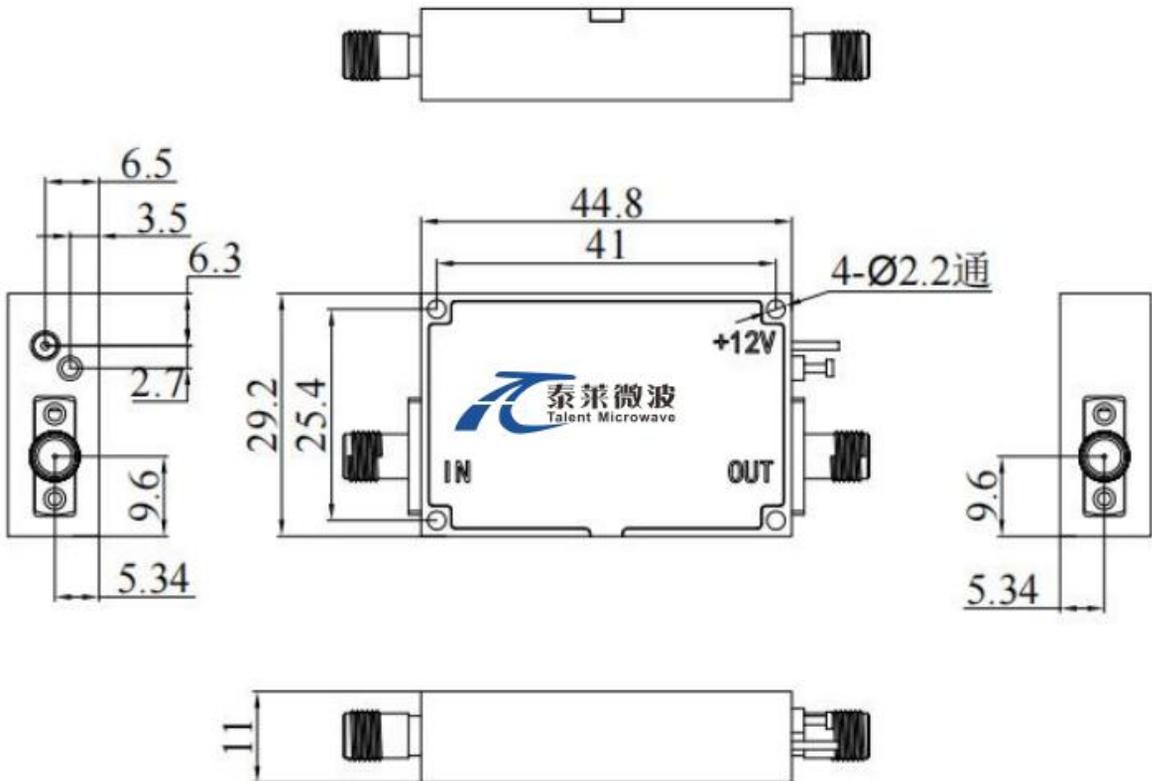
ESD Protection: Strictly
adhere to ESD precautions
to prevent electrostatic
damage.

温度环境 Environmental Conditions:

参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	0		+55	℃
存储温度 Non-operating Temperature	-25		+65	℃
相对湿度 Relative humidity		95		%
海拔 Altitude	50,000			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
TLAM-2050-0415-K	Active Multiplier X4, 20-50 GHz ,+15 dBm Output Power	Rev.1.1

典型曲线 Typical Performance Data:

Output Power vs Frequency

典型曲线 Typical Performance Data:

Harmonic Suppression vs Frequency
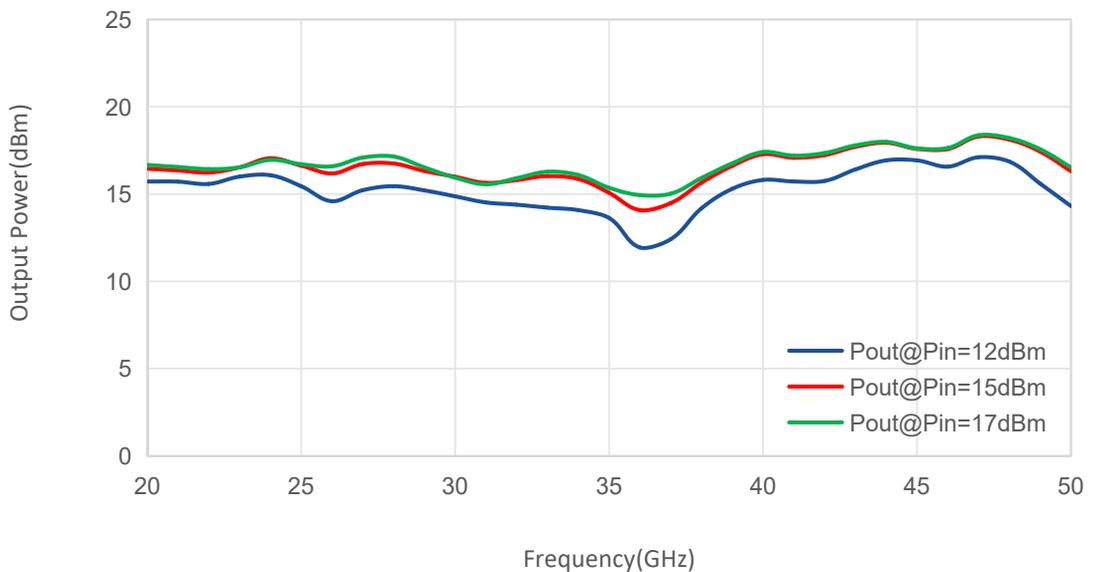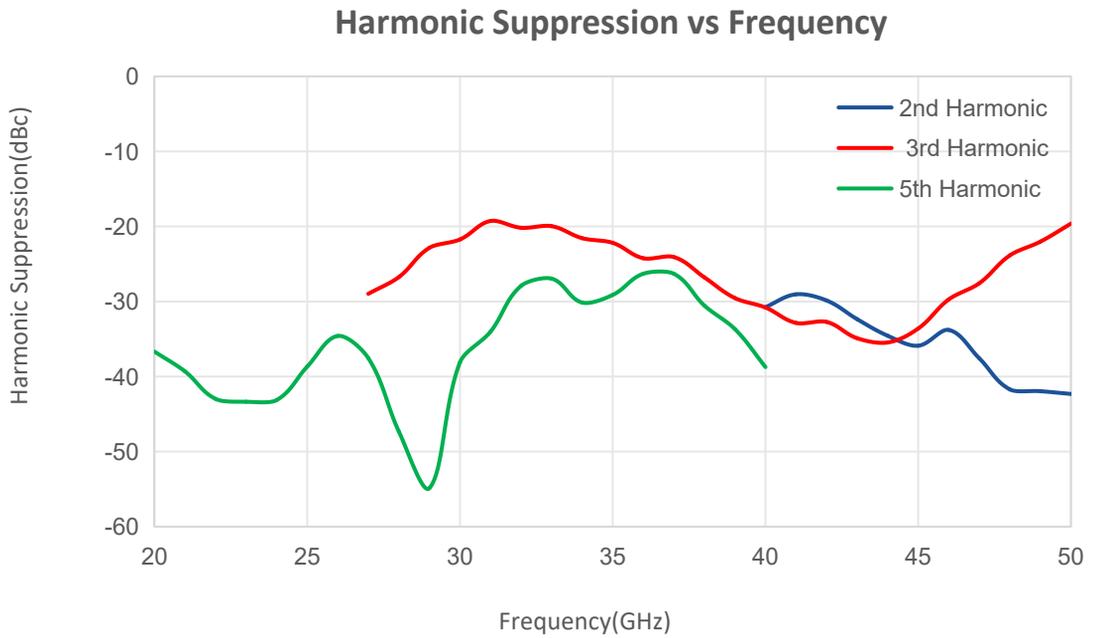
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.