

## Active Frequency Multiplier X4/10-22GHz/13dBm Output Power

Model: TLAM-1022-0413-S

TLAM-1022-0413-S is an active X4 frequency multiplier. The multiplier has an input frequency of 2.5 to 5.5 GHz with a typical input power of +3 dBm and an output frequency of 10 to 22 GHz with a minimum output power of +13 dBm. The DC power requirement for the multiplier is +12V DC/80 mA. The input and output port configuration is female SMA connector.

### Features:

- Output Frequency: 10-22GHz
- Output Power: 13dBm Min
- 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	10		22	GHz
输出功率 Output Power	13			dBm
输入频率 Input Frequency	2.5		5.5	GHz
输入功率 Input Power	0	3	10	dBm
倍频次数 Multiply Factor		4		
供电电压 DC Voltage	8	12	15	V
供电电流 DC Supply Current		80		mA

## 机械特性 Mechanical Specifications:

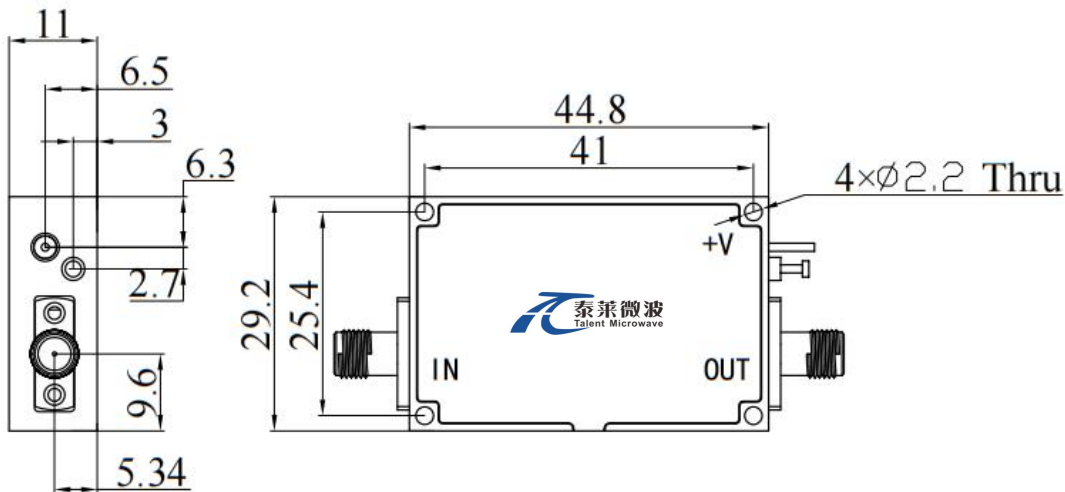
参数 Parameter	指标 Value	单位 Units
输出接口 Output Connector	SMA Female	
输入接口 Input Connector	SMA Female	
直流偏置 DC Bias	Solder Pin	
尺寸 Size	44.8*29.2*11	mm

### 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	+10 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:

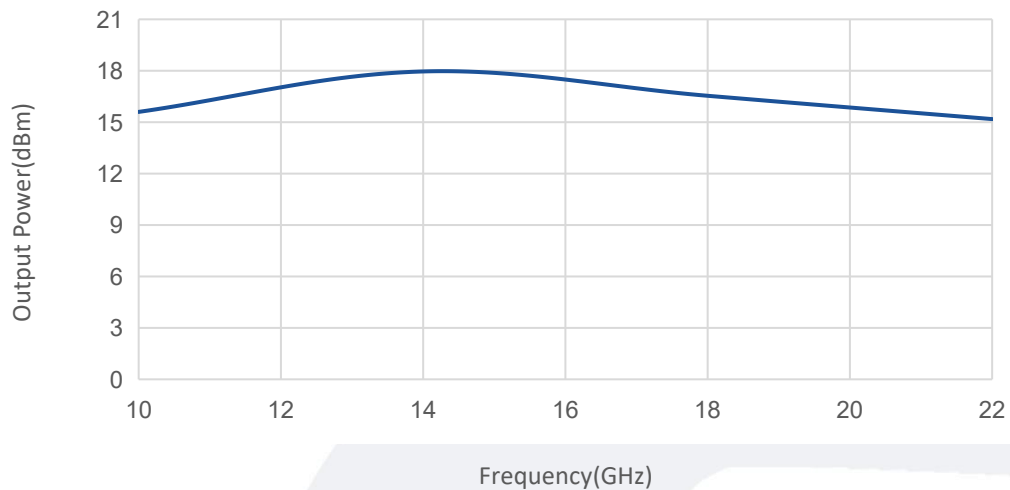
参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	-45		+85	°C
存储温度 Non-operating Temperature	-55		+125	°C
相对湿度 Relative humidity		95		%
海拔 Altitude		10,000		feet
震动 Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
冲击 Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

## 订货信息 Ordering Information:

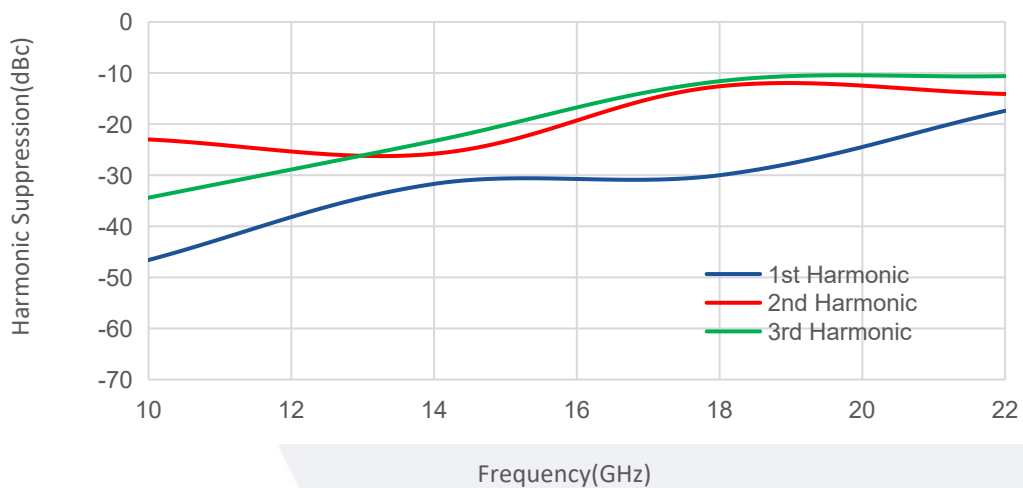
标准型号 Base Number	描述 Description	版本号 Revision
TLAM-1022-0413-S	Active Multiplier,X4, 10-22GHz , +13dBm Output Power,SMA Female	Rev.1.0

## 典型曲线 Typical Performance Data:

### Output Power vs Frequency



### 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.