

## Active Frequency Multiplier

### X2/4-16GHz/15dBm Output Power

**Model: TLAM-0416-0215-S**

TLAM-0416-0215-S is an active X2 frequency multiplier. The multiplier has an input frequency of 2 to 8 GHz with a typical input power of +5 dBm and an output frequency of 4 to 16 GHz with a typical output power of +15 dBm. The DC power requirement for the multiplier is +12 V DC/65 mA. The input/output port configuration is female SMA connector.

#### Features:

- Output Frequency: 4-16GHz
- 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 | 4   |     | 16  | GHz      |
| 输出功率 Output Power     |     | +15 |     | dBm      |
| 输入频率 Input Frequency  | 2   |     | 8   | GHz      |
| 输入功率 Input Power      |     | 5   | 10  | dBm      |
| 倍频次数 Multiply Factor  |     | 2   |     |          |
| 基波 1st Harmonic       |     | -18 |     | dBc      |
| 3次谐波 3rd Harmonic     |     | -20 |     | dBc      |
| 供电电压 DC Voltage       | +8  | +12 | +15 | V        |
| 供电电流DC Supply Current |     | 65  |     | mA       |

### 机械特性 Mechanical Specifications:

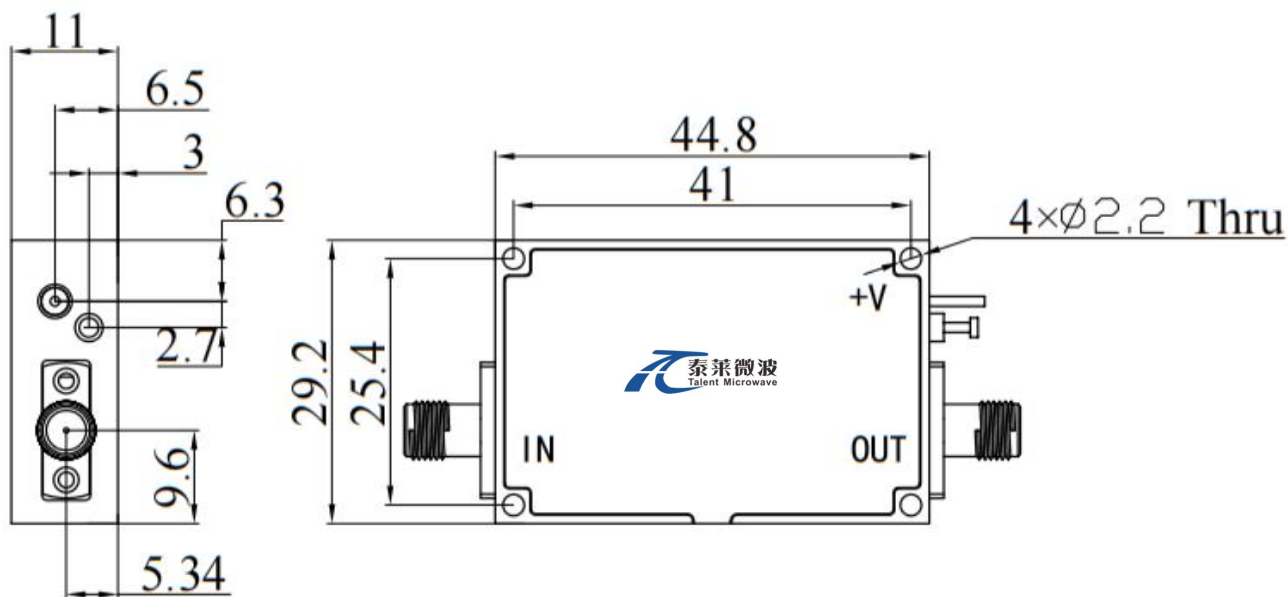
| 参数 Parameter          | 指标 Value     | 单位 Units |
|-----------------------|--------------|----------|
| 输出接口 Output Connector | SMA Female   |          |
| 输入接口 Input Connector  | SMA Female   |          |
| 直流偏置 DC Bias          | Solder Pin   |          |
| 尺寸 Size               | 44.8*29.2*11 |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

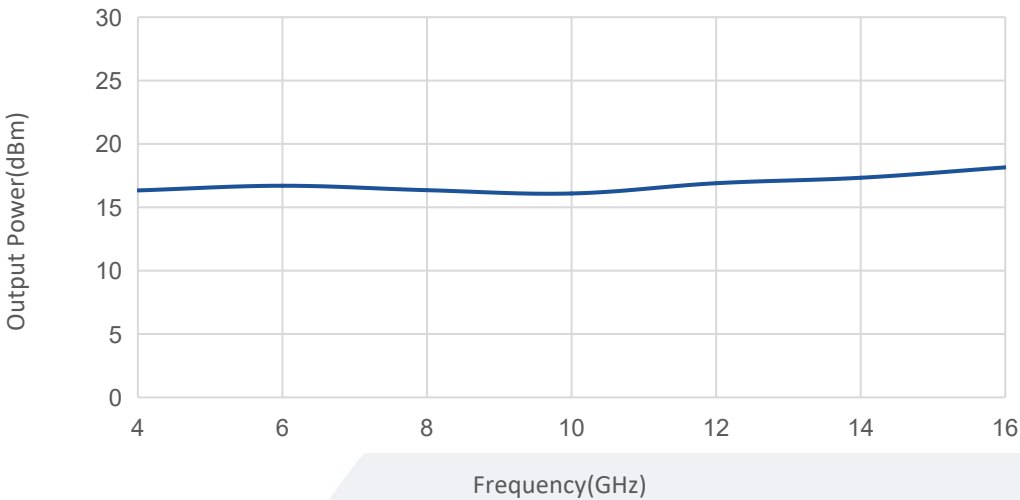
| 参数 Parameter                       | Min                                                 | Typ | Max | 单位 Units |
|------------------------------------|-----------------------------------------------------|-----|-----|----------|
| 操作温度 Operating Temperature         | -10                                                 |     | +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:

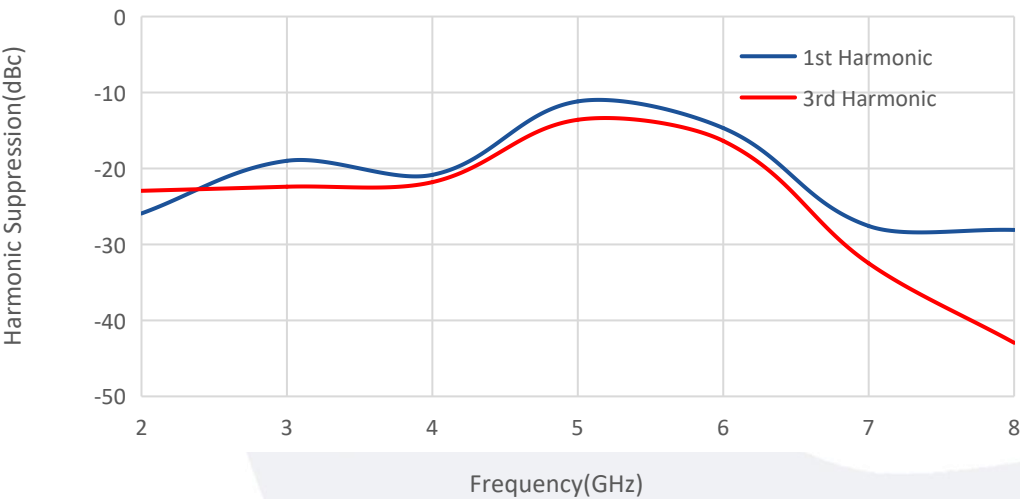
| 标准型号 Base Number | 描述 Description                                                     | 版本号 Revision |
|------------------|--------------------------------------------------------------------|--------------|
| TLAM-0416-0215-S | Active Multiplier<br>X2, 4-16 GHz ,+15 dBm Output Power,SMA Female | Rev.1.1      |

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.