

## Passive Multiplier

### X2/12-24GHz /2dBm Output Power

Model: TLPM-1224-0202-K

TLPM-1224-0202-K is a X2 passive multiplier. The multiplier has an input frequency of 6 to 12 GHz with a typical input power of +15 dBm and an output frequency of 12 to 24 GHz with a typical output power of +2 dBm. The input and output ports configuration are 2.92mm connector.

#### Features:

- Output Frequency:12-24GHz
- Output Power :2dBm 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          | 12  |     | 24  | GHz      |
| 输出功率 Output Power              |     | 2   |     | dBm      |
| 输入频率 Input Frequency           | 6   |     | 12  | GHz      |
| 输入功率 Input Power               |     | 15  |     | dBm      |
| 倍频次数 Multiply Factor           |     | 2   |     |          |
| 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 |     | -25 |     | dBc      |

The value of harmonic isolation is compared to input power.

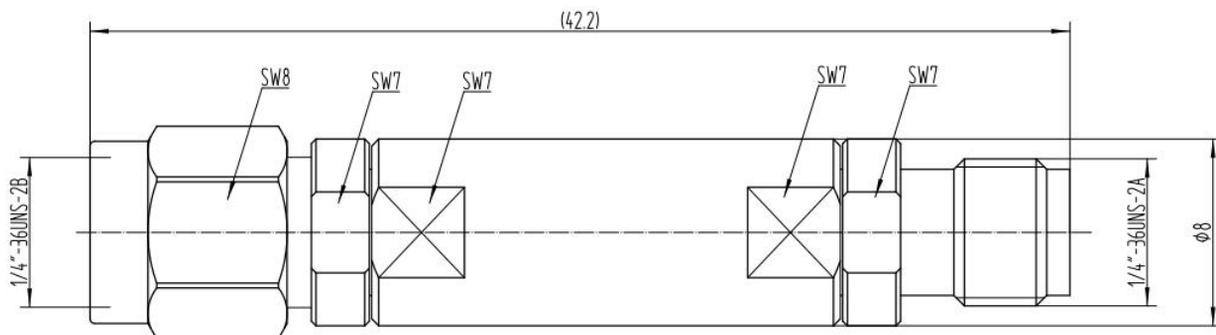
### 机械特性 Mechanical Specifications:

| 参数 Parameter          | 指标 Value      | 单位 Units |
|-----------------------|---------------|----------|
| 输出接口 Output Connector | 2.92mm Female |          |
| 输入接口 Input Connector  | 2.92mm Male   |          |
| 长度 Length             | 42.2          | mm       |

## 绝对最大值 Absolute Maximum Ratings:

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

## 外形图 Outline Drawing: Unit:mm



## 温度环境 Environmental Conditions:

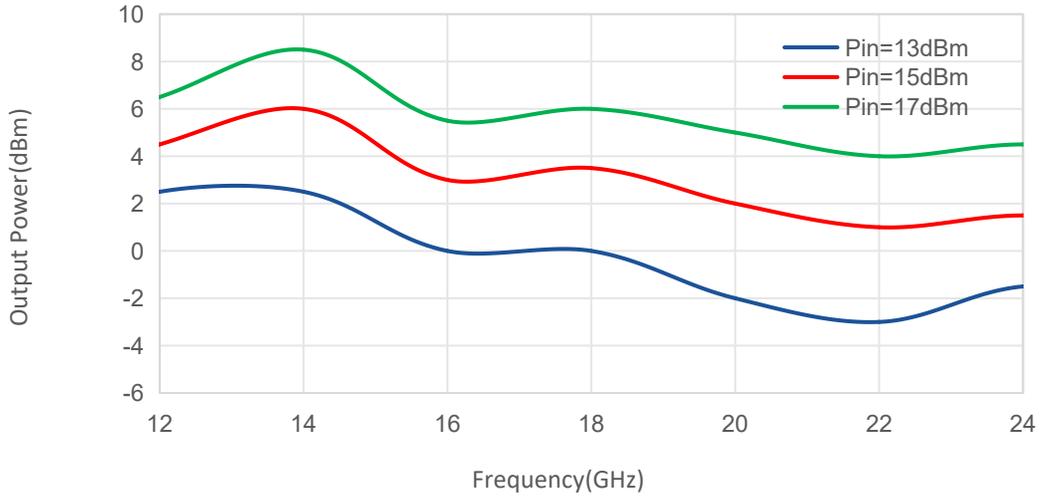
| 参数 Parameter                       | Min   | Typ | Max | 单位 Units |
|------------------------------------|---|-----|-----|----------|
| 操作温度 Operating Temperature         | -10   |     | +65 | °C       |
| 存储温度 Non-operating Temperature     | -45   |     | +85 | °C       |
| 相对湿度 Relative humidity             |   | 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:

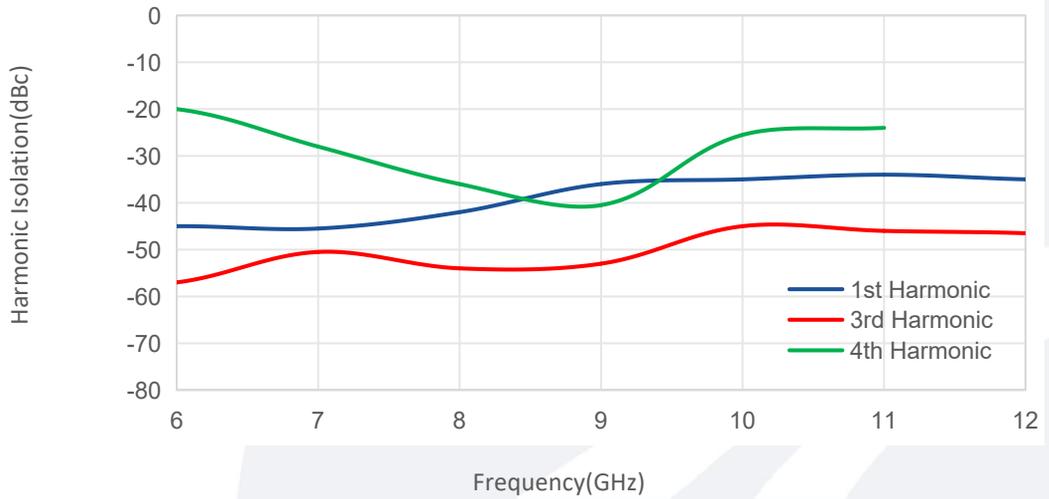
| 标准型号 Base Number | 描述 Description  | 版本号 Revision |
|------------------|---|--------------|
| TLPM-1224-0202-K | Passive Multiplier , X2, 12-24GHz ,<br>+2 dBm Output Power,2.92mm | Rev.1.1      |

**典型曲线 Typical Performance Data:**

**Output Power@Pin**



**Harmonic Isolation 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.