

## G-Band Fixed Attenuator

WR-5.1/140-220GHz/10 ±1dB Attenuation

Model: TLFA-10-WR05

TLFA-10-WR05 is a 10 dB fixed attenuator that is used in millimeterwave systems and operates from 140 to 220 GHz. The input and output port configuration offers an inline structure with WR-5.1 waveguides and UG-387/U-M anticocking flanges. Other attenuation values are available under different model numbers as TLFA-XX-WR05, where XX is the desired attenuation value.

### Features:

- Full Band Coverage
- 1-35dB Available
- Good attenuation flatness
- Good Return Loss

### Applications:

- Test Equipment
- RF Over Fiber
- Communication Systems
- Radar Systems

### 电气特性 Electrical Characteristics:

| 参数 Parameter                   | Min | Typ | Max | 单位 Units |
|--------------------------------|-----|-----|-----|----------|
| 频率范围 Frequency range           | 140 |     | 220 | GHz      |
| 衰减量 Attenuation Value          |     | 10  |     | dB       |
| 衰减平坦度 Attenuation Flatness     |     | ±1  |     | dB       |
| 回波损耗 Return Loss               |     | -20 |     | dB       |
| 功率容量 Power Handling            |     |     | 100 | mW       |
| 标称温度 Specification Temperature |     | +25 |     | °C       |

### 机械特性 Mechanical Specifications:

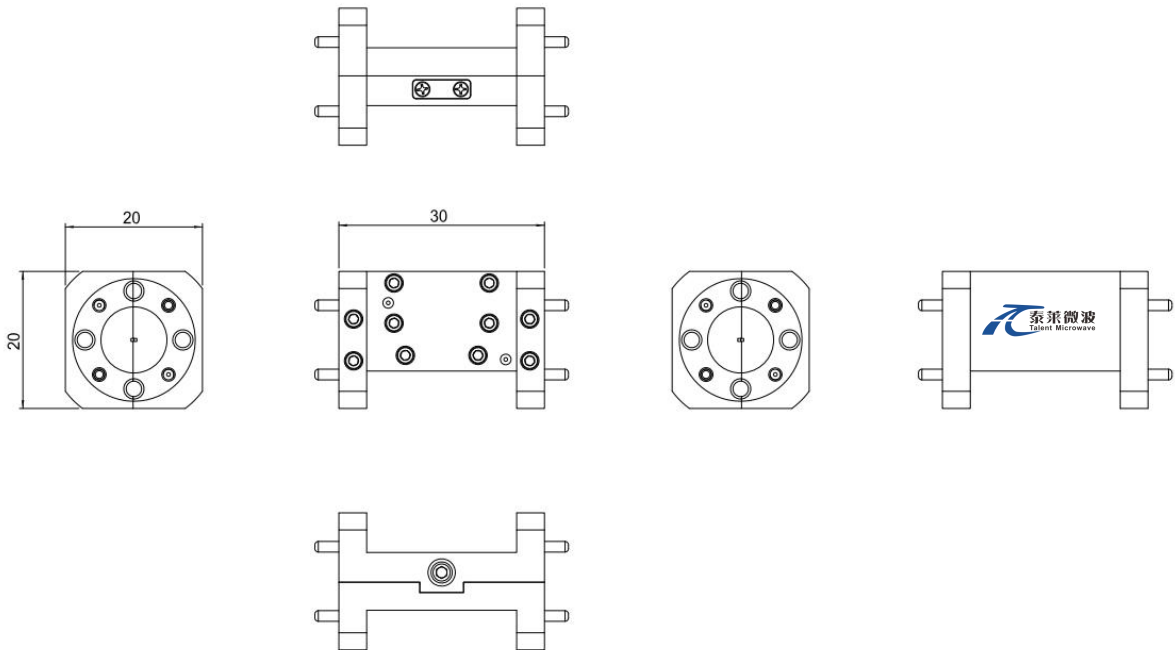
| 参数 Parameter                    | 指标 Value          | 单位 Units |
|---------------------------------|-------------------|----------|
| 输入/输出接口 Input /Output Connector | WR-5.1/UG-387/U-M |          |
| 材质 Material                     | Brass             |          |
| 表面处理 Finish                     | Gold Plated       |          |
| 尺寸 Size                         | 30*20*20          | mm       |

## 绝对最大值 Absolute Maximum Ratings:

| 参数 Parameter        | 指标 Value |
|---------------------|----------|
| 输入功率 RF Input Power | +20dBm   |

## 外形图 Outline Drawing:

Unit:mm; Tolerance:±0.1mm



## 温度环境 Environmental Conditions:

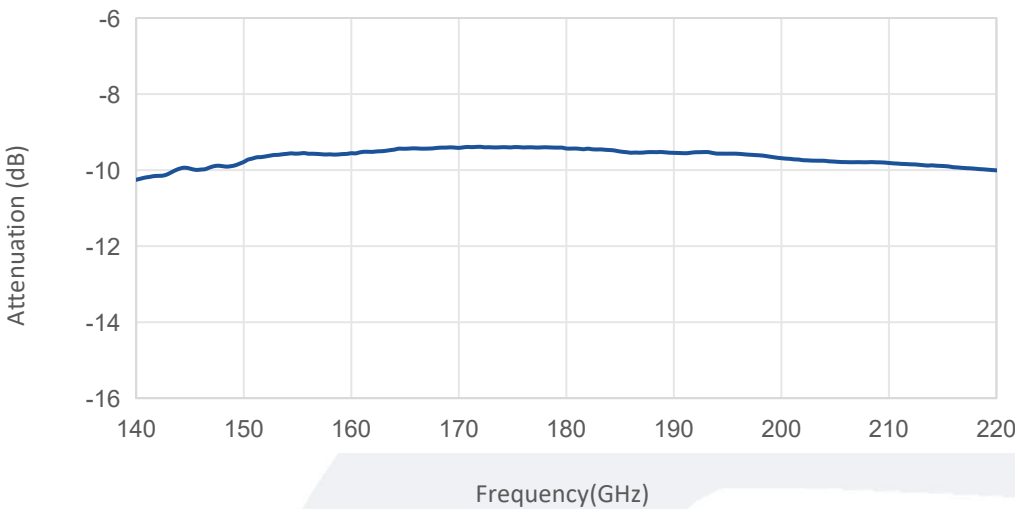
| 参数 Parameter                       | Min                                                 | Typ | Max | 单位 Units |
|------------------------------------|-----------------------------------------------------|-----|-----|----------|
| 操作温度 Operating Temperature         | -10                          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

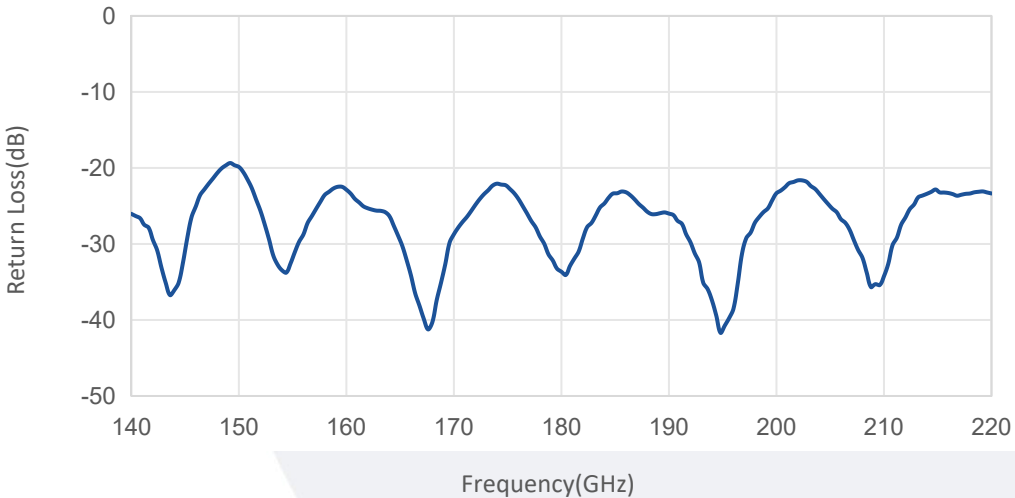
| 标准型号 Base Number | 描述 Description                                                        | 版本号 Revision |
|------------------|-----------------------------------------------------------------------|--------------|
| TLFA-10-WR05     | WR-5.1 Waveguide Fixed Attenuators;<br>140-220GHz, 10±1dB Attenuation | Rev.1.0      |

典型曲线 Typical Performance Data:

Attenuation vs Frequency



Return Loss 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.