

## Broadband Bias Tee

### 100KHz-18GHz /50V DC/SMA

Model: TLBT-100K18G-50-SS

TLBT-100K18G-50-SS is a bias tee that operates from 100 KHz to 18 GHz. The bias tee offers 2.0 dB insertion loss and -15 dB typical return loss. The bias tee can handle up to +50 VDC bias voltage and 700 mA current. The all ports are equipped with SMA female connectors.

### Features:

- Ultra Wide Band:100KHz-18GHz
- Low Insertion Loss
- High Voltage
- High Current Capacity

### Applications:

- Test Lab
- Sub-assemblies
- System Integrations

## 电气特性 Electrical Characteristics:

| 参数 Parameter         | Min          | Typ | Max | 单位 Units |
|----------------------|--------------|-----|-----|----------|
| 频率范围 Frequency range | 100KHz-18GHz |     |     |          |
| 插损 Insertion Loss    |              |     | 2   | dB       |
| 回波损耗 Return Loss     |              | -15 |     | dB       |
| 隔离 Isolation         | 35           |     |     | dB       |
| 直流电压 DC Voltage      |              |     | 50  | V DC     |
| 直流电阻 DC Resistance   |              | 4   |     | $\Omega$ |
| 直流电流 DC Current      |              |     | 700 | mA       |
| 射频功率 RF Power        |              |     | 1   | W        |

## 机械特性 Mechanical Specifications:

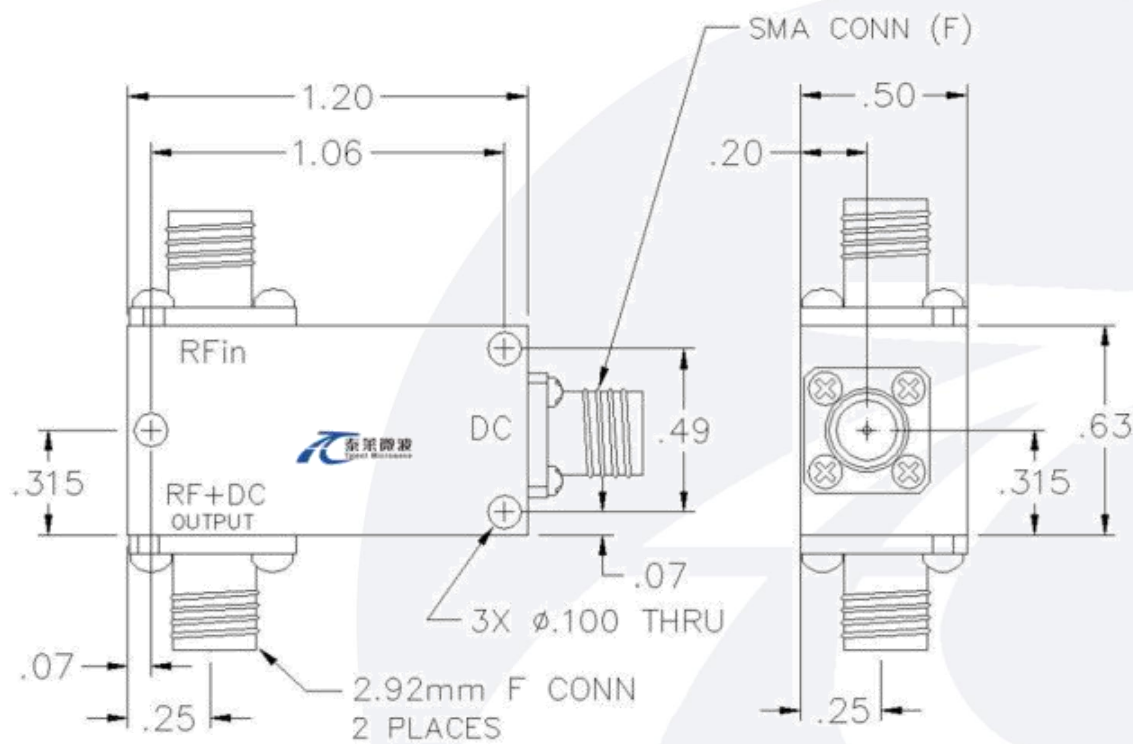
| 参数 Parameter                    | 指标 Value              | 单位 Units |
|---------------------------------|-----------------------|----------|
| 输入/输出接口 Input /Output Connector | SMA Female/SMA Female |          |
| 直流接口 DC Connector               | SMA Female            |          |
| 壳体材料 Case Material              | Aluminum              |          |
| 表面处理 Finish                     | Bue Paint             |          |
| 尺寸 Size                         | 1.2*0.5*0.63          | Inch     |
| 重量 Weight                       | 45                    | g        |

## 绝对最大值 Absolute Maximum Ratings:

| 参数 Parameter                 | 指标 Value             |
|------------------------------|----------------------|
| 供电偏置电压 Supply Bias Voltage   | +50 V                |
| 输入功率 RF Input Power          | +30 dBm              |
| ESD灵敏度 ESD sensitivity (HBm) | Class 0, passed 150V |

## 外形图 Outline Drawing:

Unit:Inch



OBSERVE PRECAUTIONS  
ELECTROSTATIC SENSITIVE  
DEVICES

## 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:

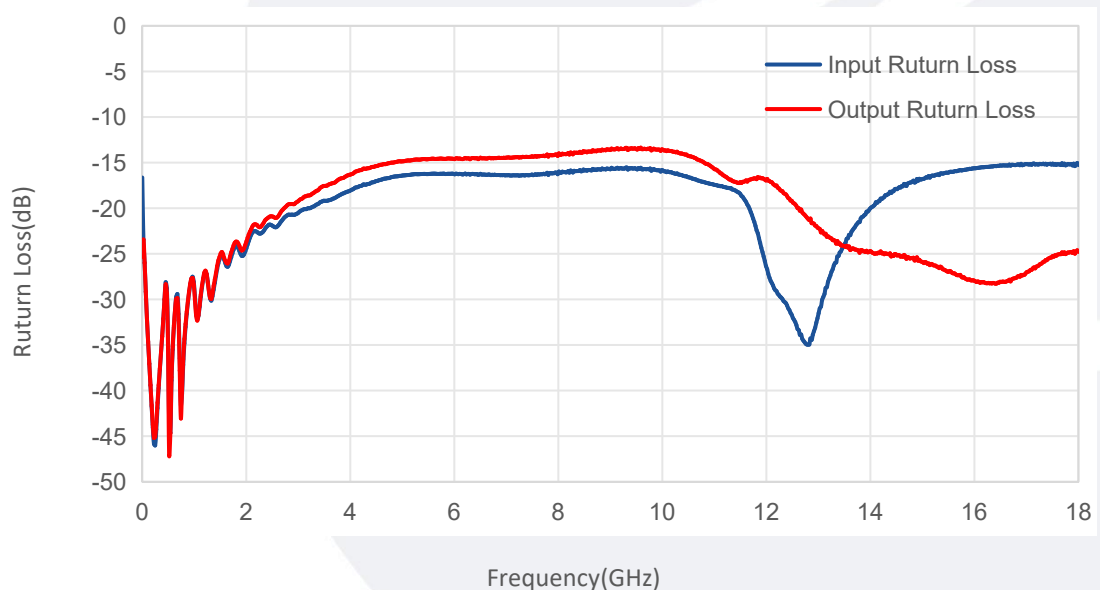
| 标准型号 Base Number   | 描述 Description                               | 版本号 Revision |
|--------------------|----------------------------------------------|--------------|
| TLBT-100K18G-50-SS | Broadband Bias Tee<br>SMA,100KHz-18 GHz,+50V | Rev.1.1      |

### Notes:

1. All data taken @ +23° C unless otherwise specified.
2. Dimensions and specifications may be changed without prior notice.

## 典型曲线 Typical Performance Data:

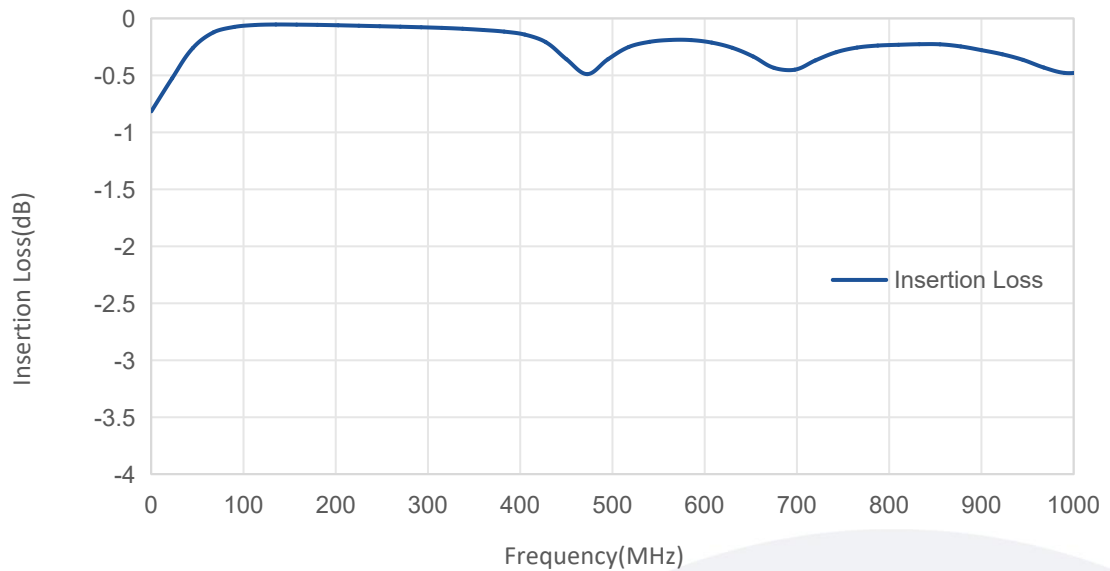
Return Loss vs Frequency



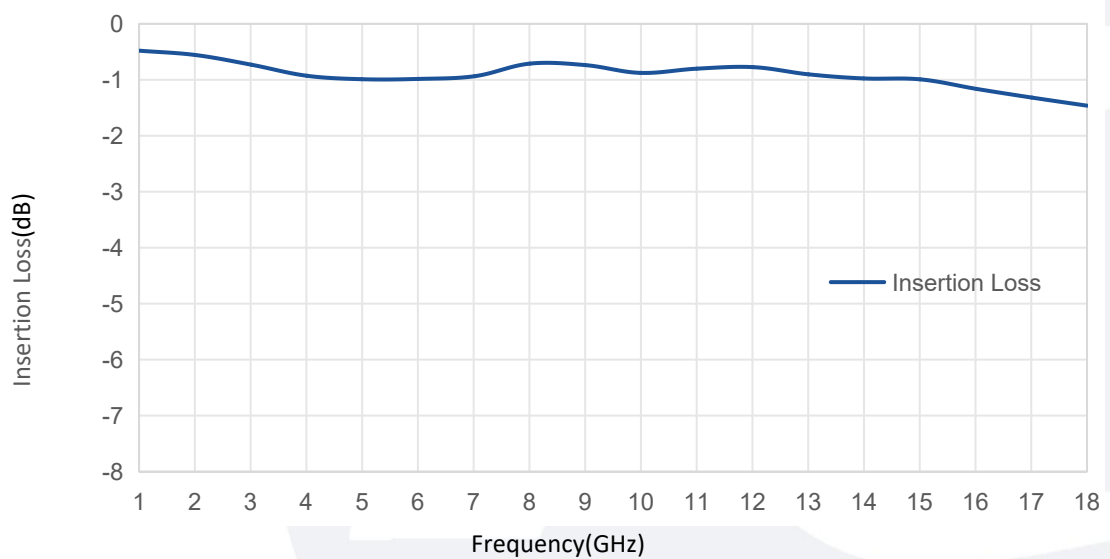
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

## 典型曲线 Typical Performance Data:

### RF to Com Insertion Loss vs Frequency



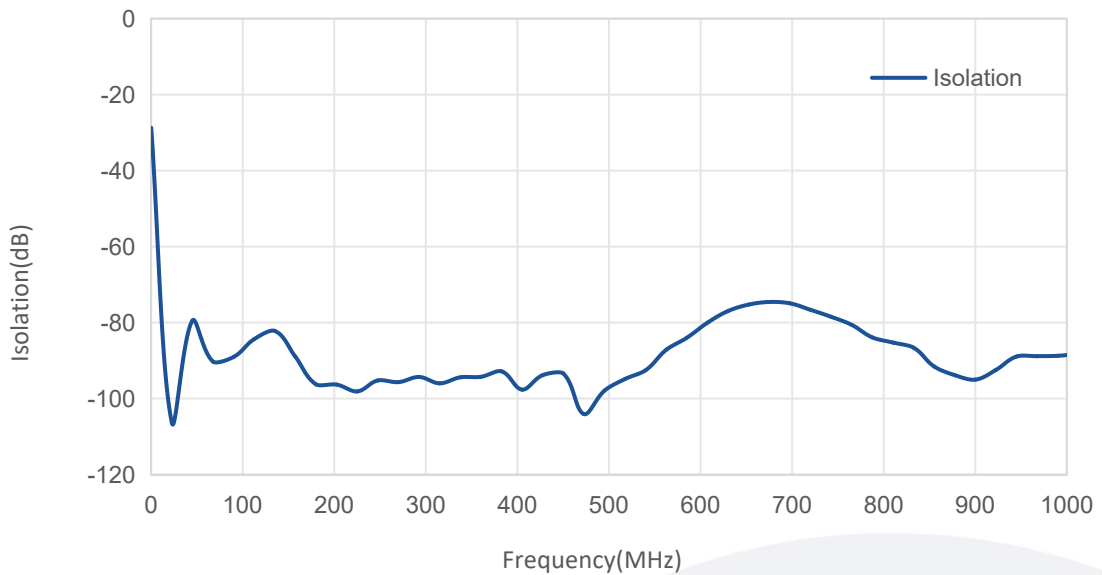
### RF to Com Insertion Loss vs Frequency



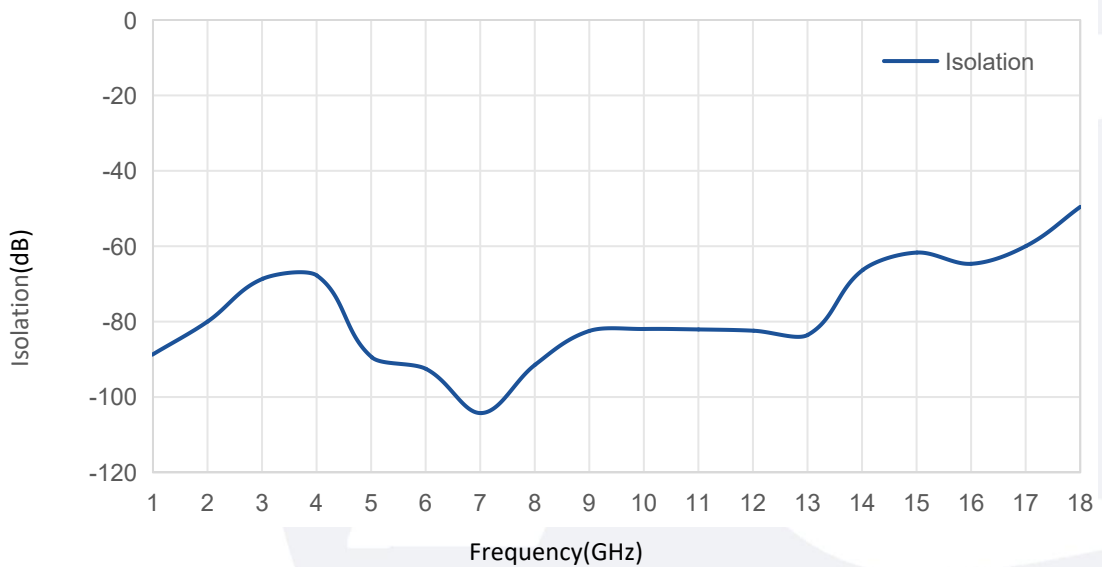
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

## 典型曲线 Typical Performance Data:

### DC to Com Isolation vs Frequency



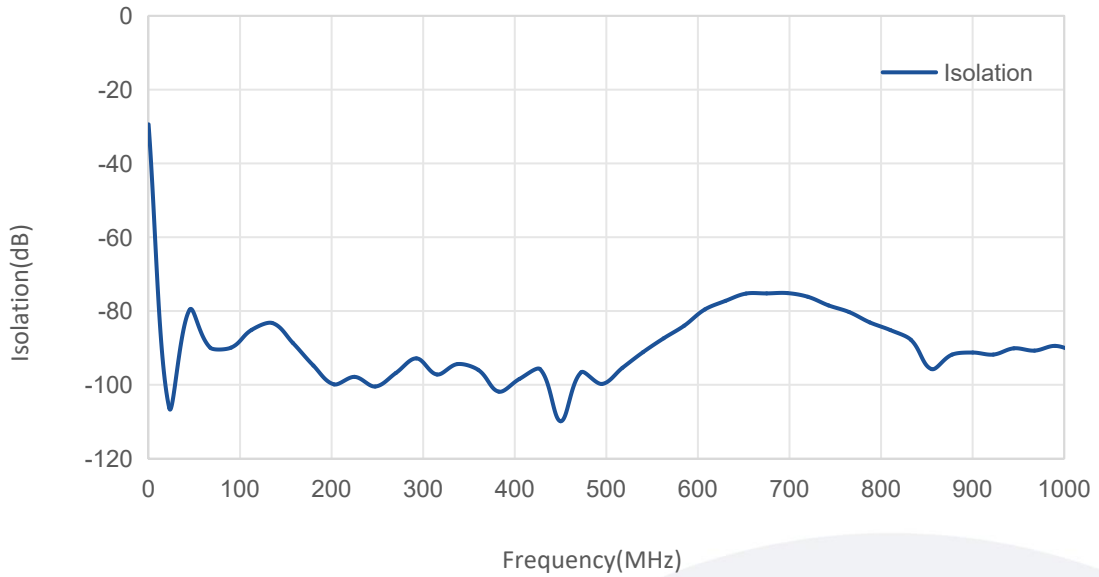
### DC to Com Isolation vs Frequency



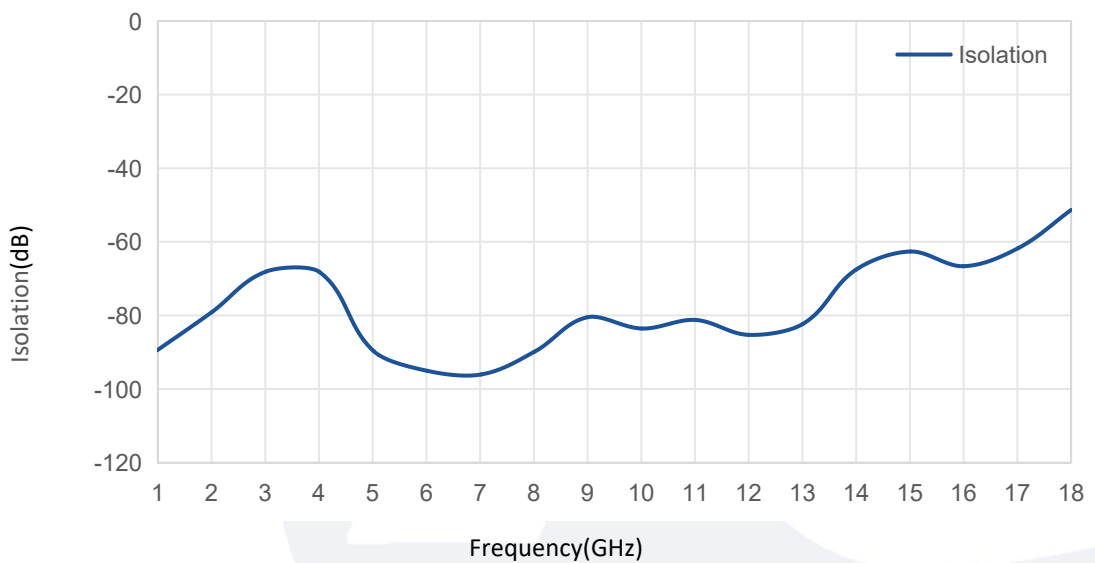
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

## 典型曲线 Typical Performance Data:

### DC to RF Isolation vs Frequency



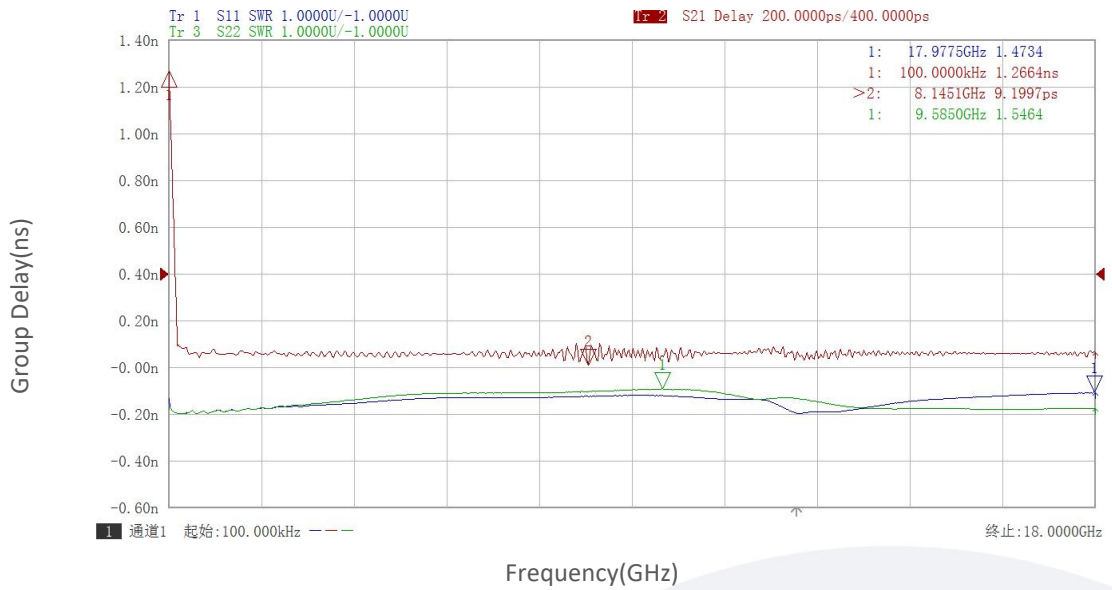
### DC to RF Isolation vs Frequency



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.

## 典型曲线 Typical Performance Data:

### Group Delay 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.