

## Broadband Bias Tee

30KHz-27GHz/50V DC/2.92 mm

Model: TLBT-30K27G-50-KS

TLBT-30K27G-50-KS is a bias tee that operates from 30 KHz to 27 GHz. The bias tee offers 2.2 dB insertion loss and -12 dB typical return loss. The bias tee can handle up to +50 VDC bias voltage and 500 mA current. The all ports are equipped with 2.92mm female connectors.

### Features:

- Ultra Wide Band:30KHz-27GHz
- Low Insertion Loss
- High Voltage
- High Current Capacity

### Applications:

- Test Lab
- Sub-assemblies
- System Integrations

### Electrical Characteristics:

| Parameter       | Min         | Typ | Max | Units |
|-----------------|-------------|-----|-----|-------|
| Frequency range | 30KHz-27GHz |     |     |       |
| Insertion Loss  |             |     | 2.2 | dB    |
| Return Loss     |             | -12 | -10 | dB    |
| Isolation       | 40          |     |     | dB    |
| DC Voltage      |             |     | 50  | V DC  |
| DC Current      |             |     | 500 | mA    |
| RF Power        |             |     | 1   | W     |

### Mechanical Specifications:

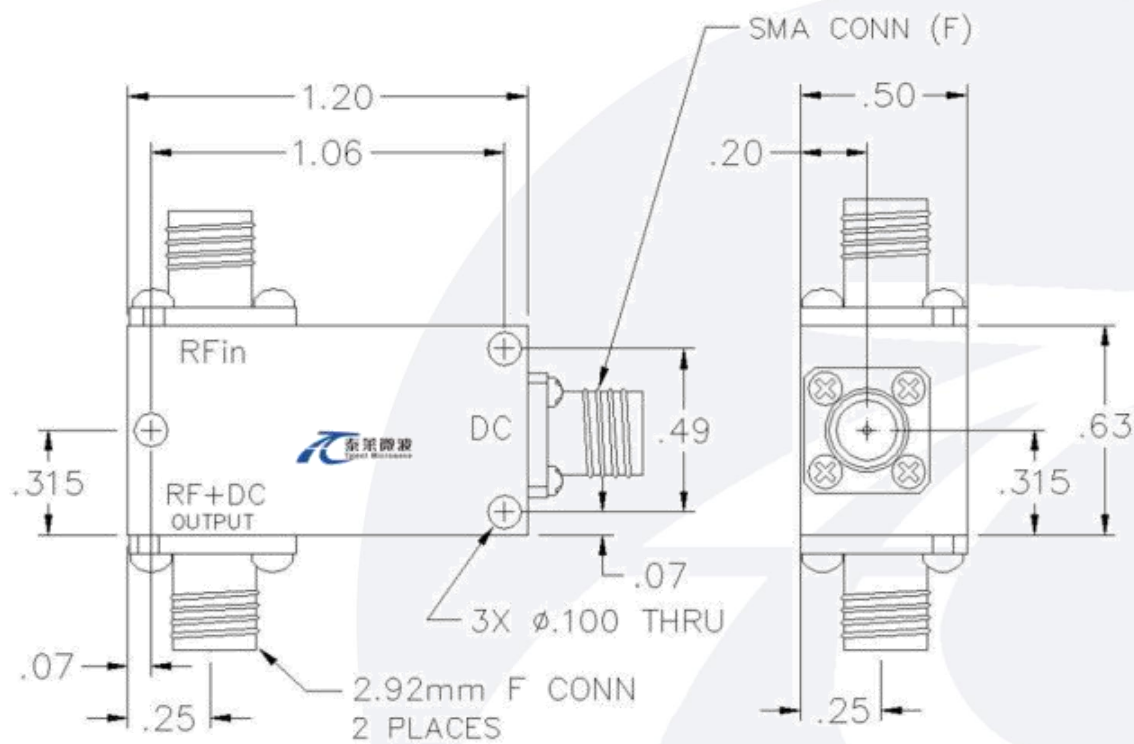
| Parameter               | Value                       | Units |
|-------------------------|-----------------------------|-------|
| Input /Output Connector | 2.92mm Female/2.92mm Female |       |
| DC Connector            | SMA Female                  |       |
| Case Material           | Aluminum                    |       |
| Finish                  | Bue Paint                   |       |
| Size                    | 1.2*0.5*0.63                | Inch  |
| Weight                  | 45                          | g     |

## Absolute Maximum Ratings:

| Parameter             | Value                |
|-----------------------|----------------------|
| Supply Bias Voltage   | +50 V                |
| RF Input Power        | +30 dBm              |
| ESD sensitivity (HBm) | Class 0, passed 150V |

## Outline Drawing:

Unit:Inch



ESD Protection: Strictly adhere to ESD precautions to prevent electrostatic damage.

## Environmental Conditions:

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

## Ordering Information:

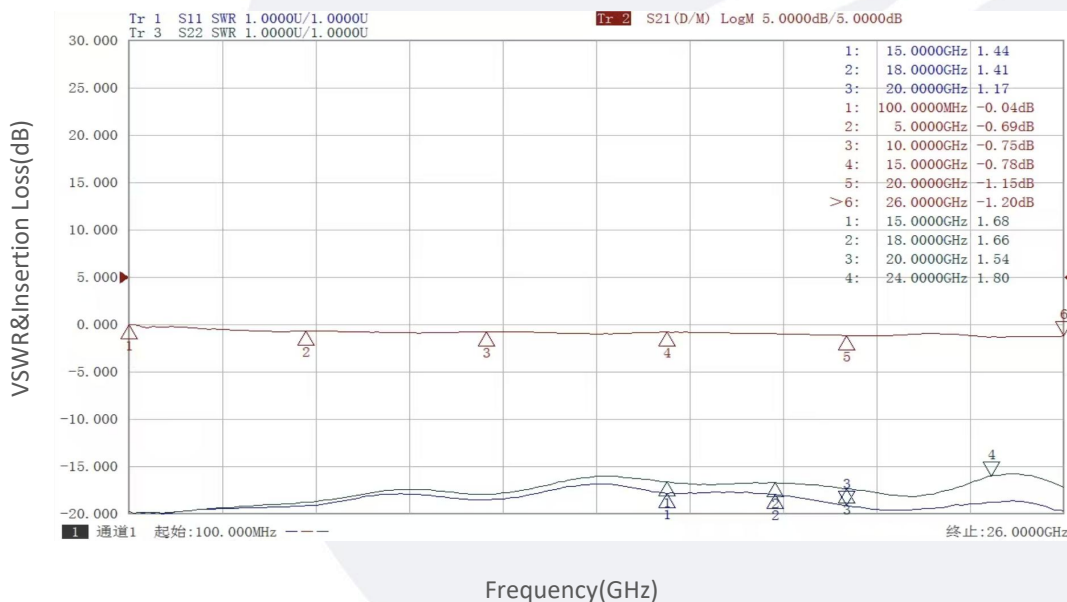
| Base Number       | Description                                           | Revision |
|-------------------|-------------------------------------------------------|----------|
| TLBT-30K27G-50-KS | Broadband Bias Tee<br>2.92mm Female,30KHz-27 GHz,+50V | Rev.1.1  |

### Notes:

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

## Typical Performance Data:

### VSWR&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.