

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:

- Frequency range:100KHz-18GHz
- Low Insertion Loss
- High Voltage
- High Current Capacity

Applications:

- Test Lab
- Sub-assemblies
- System Integrations

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	100KHz		18GHz	
Insertion Loss			2	dB
Return Loss		-15		dB
Isolation	35			dB
DC Voltage			50	V DC
DC Resistance		4		Ω
DC Current			700	mA
RF Power			1	W

Mechanical Specifications:

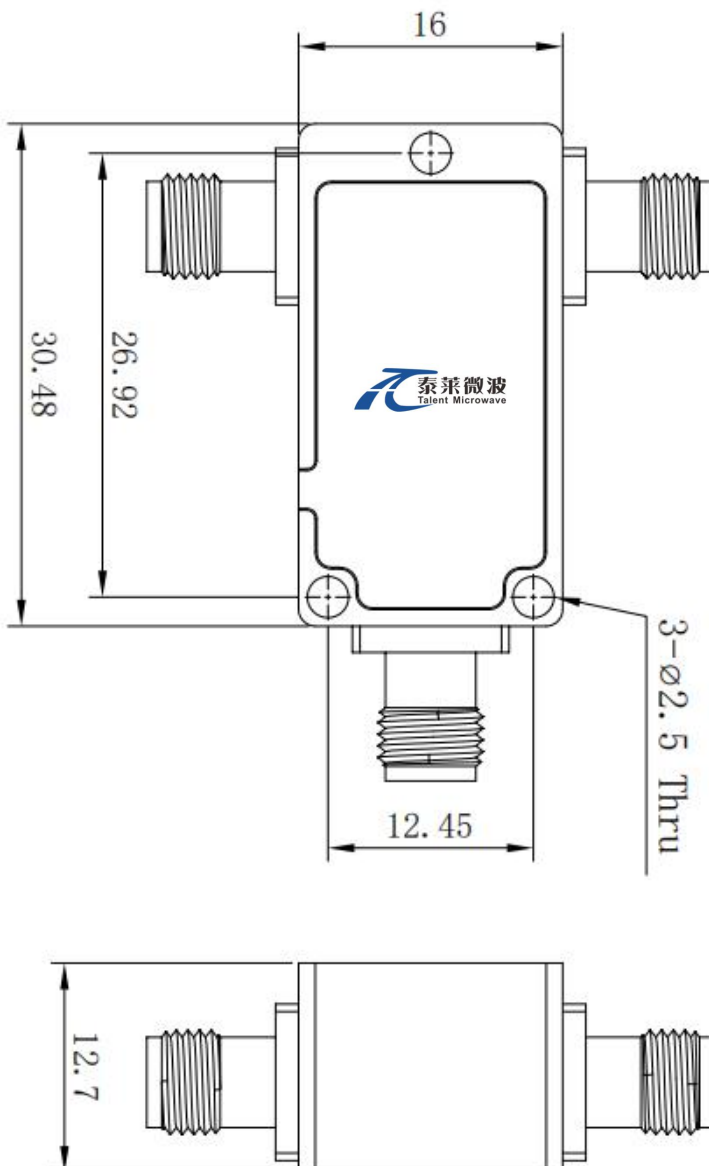
Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Connector	SMA Female	
Case Material	Aluminum	
Finish	Bue Paint	
Size	16*30.48*12.7	mm
Weight	45	g

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:mm; Tolerance:±0.1mm



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:

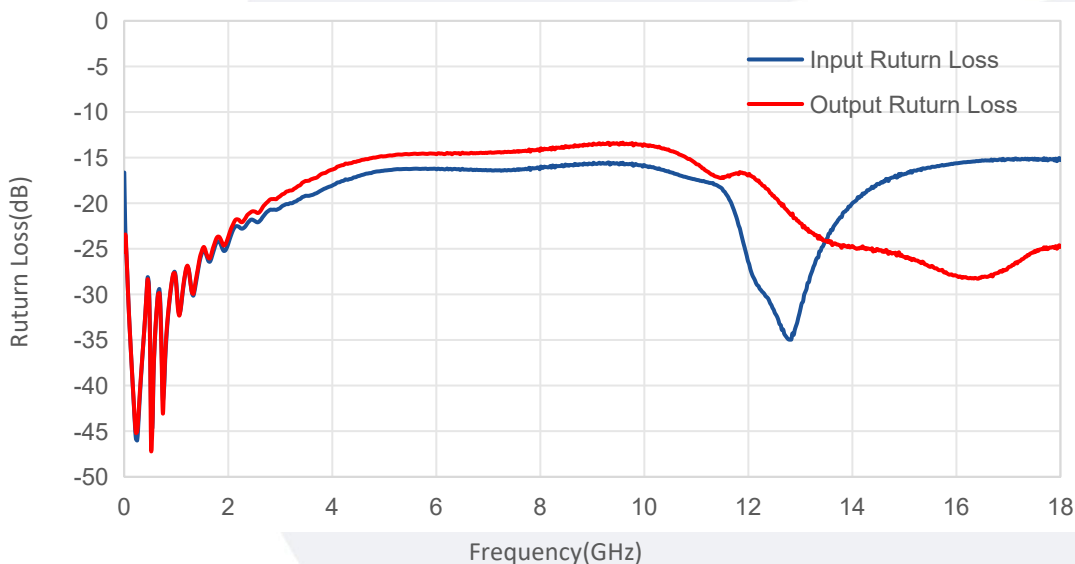
Base Number	Description	Revision
TLBT-100K18G-50-SS	Broadband Bias Tee SMA,100KHz-18 GHz,+50V	Rev.1.2

Notes:

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

Typical Performance Data:

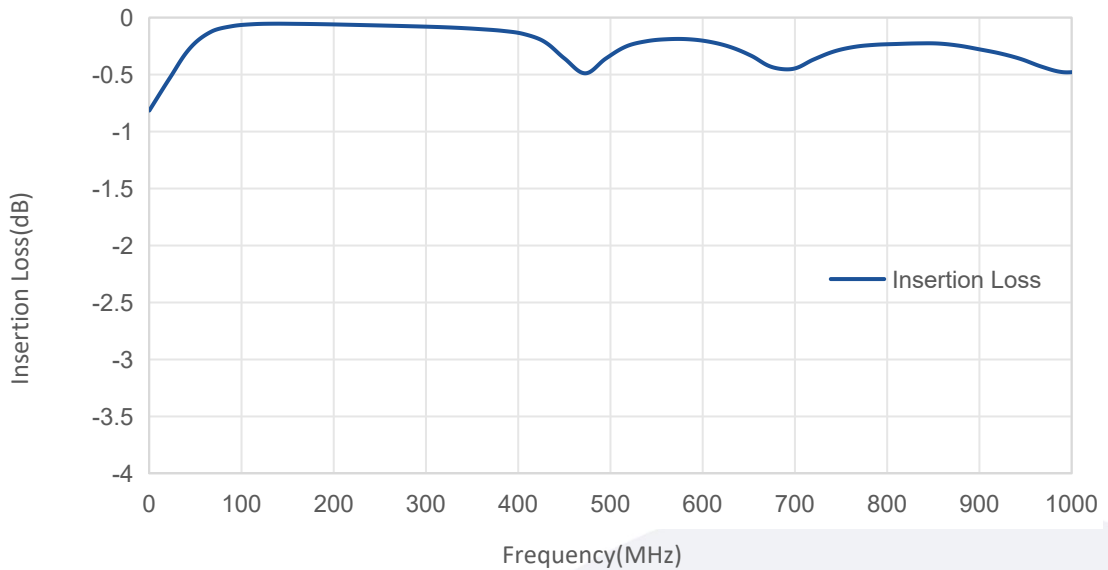
Return Loss vs Frequency



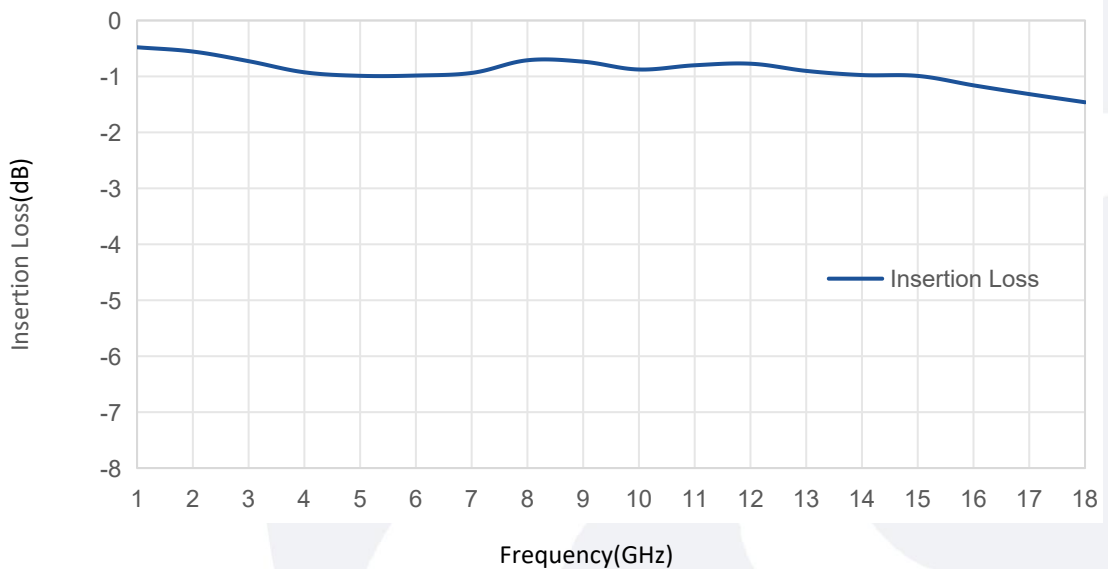
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

RF to Com Insertion Loss vs Frequency



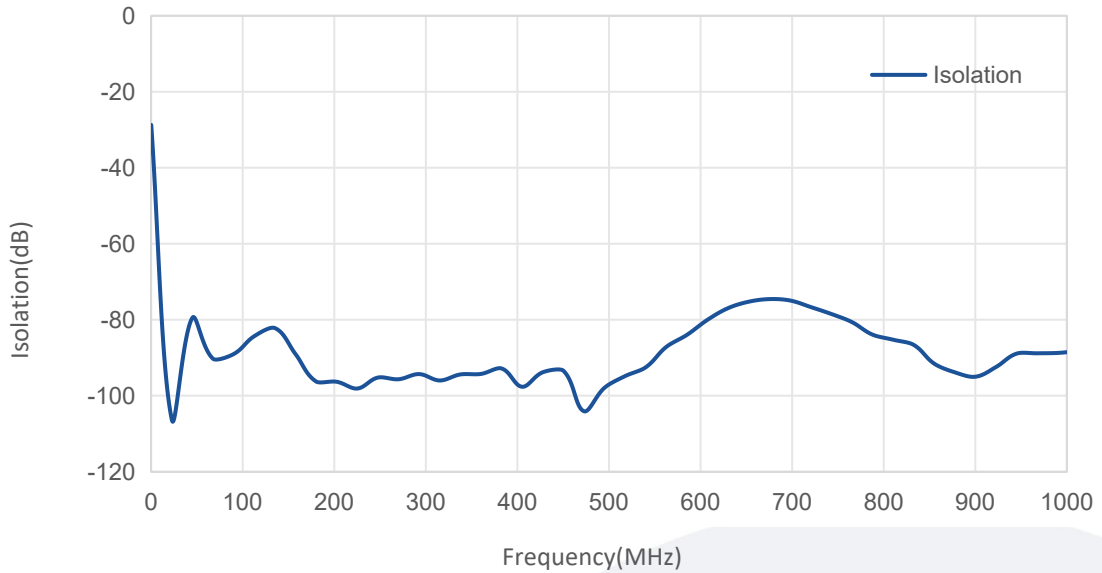
RF to Com Insertion Loss vs Frequency



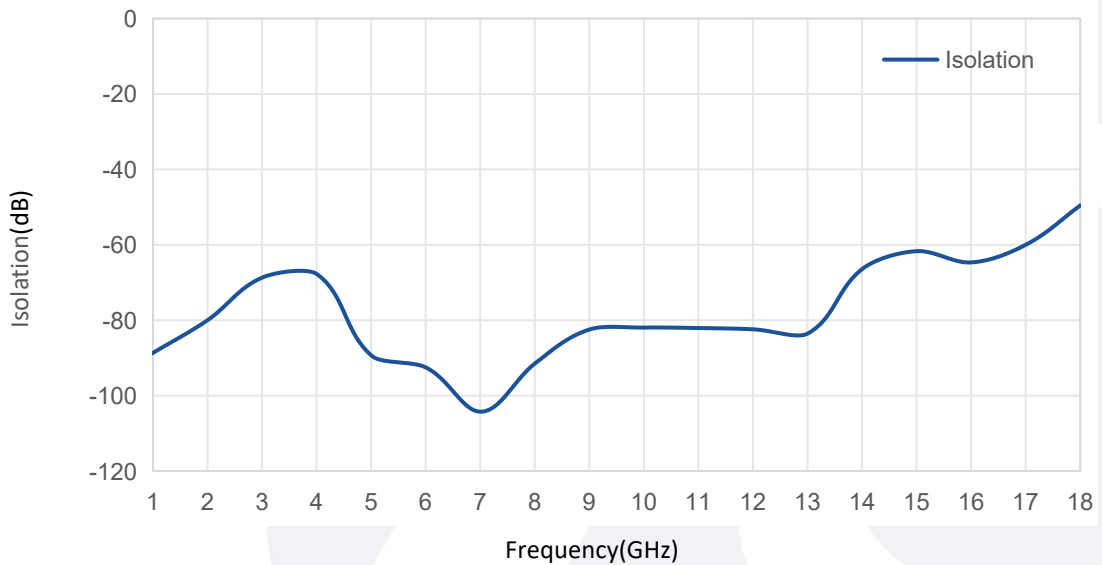
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

DC to Com Isolation vs Frequency



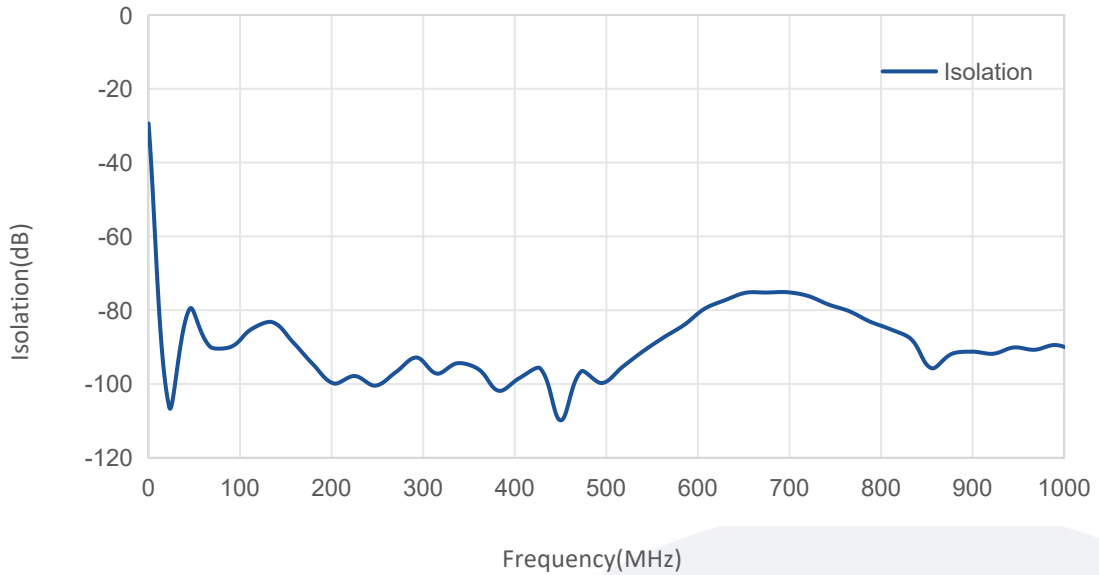
DC to Com Isolation vs Frequency



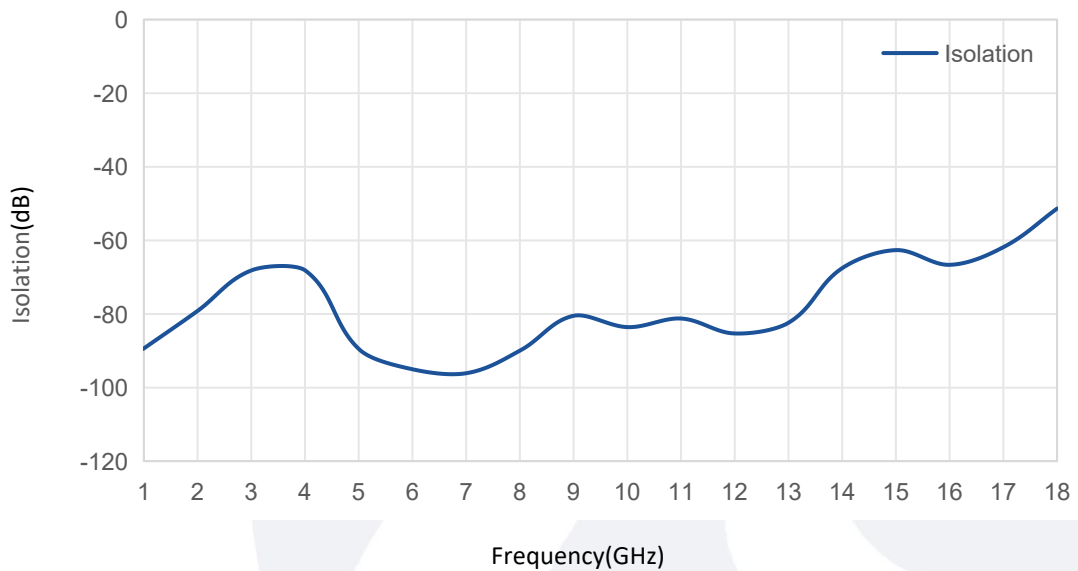
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

DC to RF Isolation vs Frequency



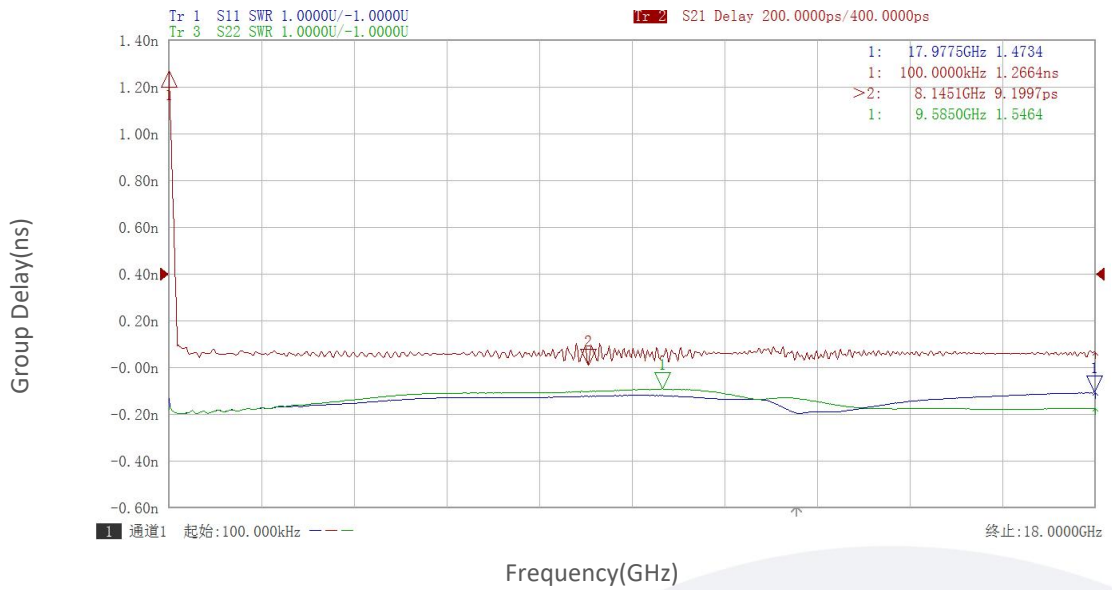
DC to RF Isolation vs Frequency



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.

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.