



COAXIAL

Wideband Bias-Tee

ZBT-K44-FT+

50Ω 10 MHz to 40 GHz 2.92mm Male to 2.92mm Female

KEY FEATURES

- Wideband Millimeter Wave , 10 MHz to 40 GHz
- Low Insertion Loss, 1.0 dB typ.
- Excellent Return Loss, 15 dB typ.
- Excellent Isolation, 35 dB typ.

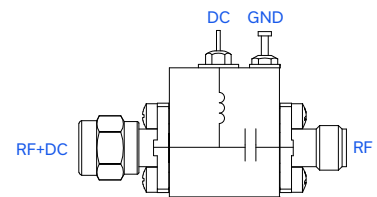


Generic photo used for illustration purposes only

PRODUCT OVERVIEW

Mini-Circuits' ZBT-K44-FT+ is an ultra-wideband coaxial bias-tee covering frequencies from 10 MHz to 40 GHz with low insertion loss, excellent return loss, and high DC to RF isolation over its entire frequency range. This model is capable of handling up to +30 dBm (1W) RF input power and DC input current up to 250mA, and is ideal for applications such as biasing amplifiers, laser diodes, active antennas and more.

FUNCTIONAL DIAGRAM



ELECTRICAL SPECIFICATIONS AT +25°C

Parameter	Frequency (GHz)	Min.	Typ.	Max.	Unit
Frequency Range		0.01		40	GHz
Insertion Loss	0.01-20	-	0.5	1.2	dB
	20-40	-	1.0	2.0	
Input Return Loss	0.01-20	-	18	9.5	dB
	20-40	-	15	9.5	
Output Return Loss	0.01-20	-	18	9.5	dB
	20-40	-	15	9.5	
Isolation ¹	0.01-40	-	35	-	dB
DC Resistance, DC to RF and DC port		-	2.5	-	Ohm

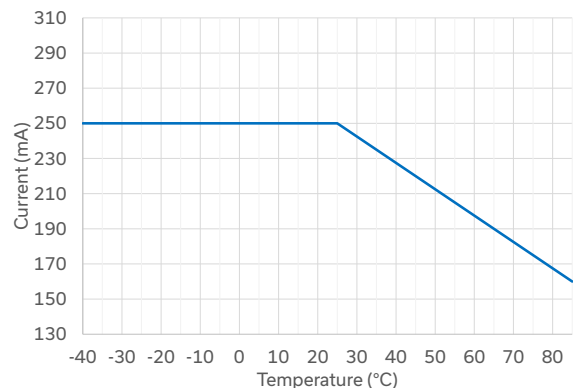
1. Isolation (RF+DC port to DC port) is tested with a 50Ohm SMA connector at the DC input port.

ABSOLUTE MAXIMUM RATINGS²

Parameter	Ratings
Operating Case Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to +100 °C
RF Power	30 dBm max.
Input Current	SEE CHART
Voltage at DC Port	25V max.

2. Permanent damage may occur if any of these limits are exceeded.

CURRENT DERATING





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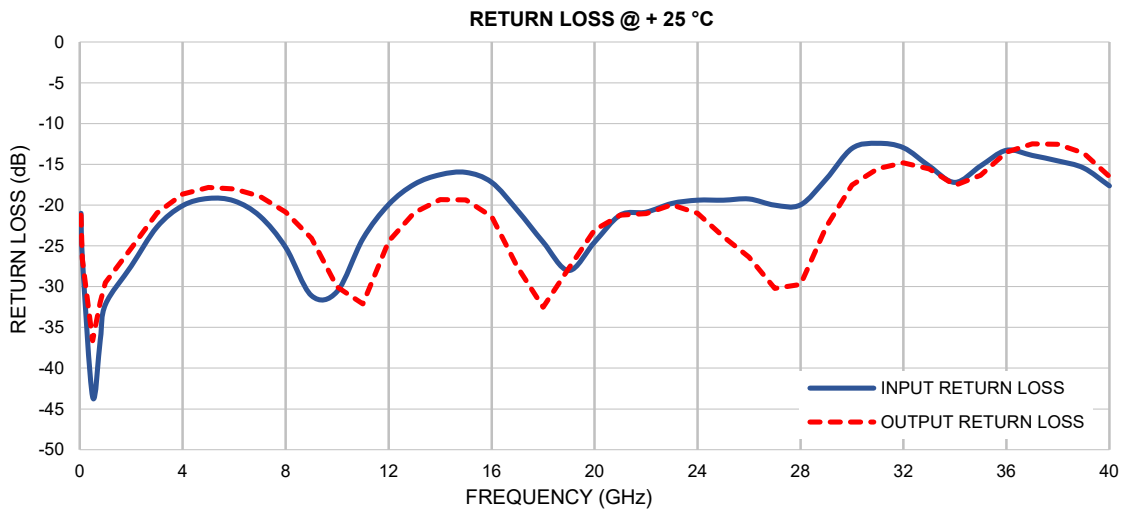
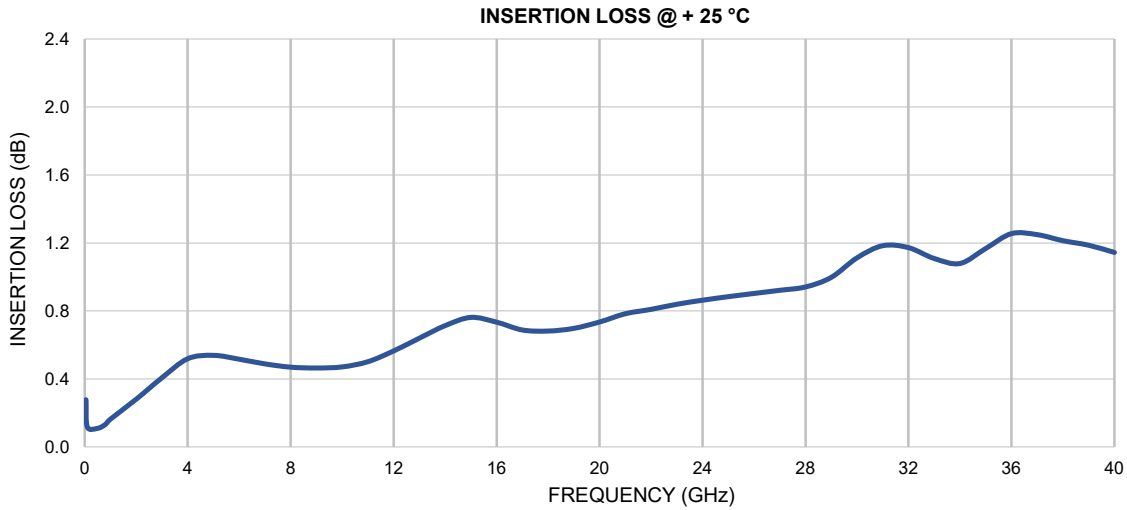
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TYPICAL PERFORMANCE GRAPHS





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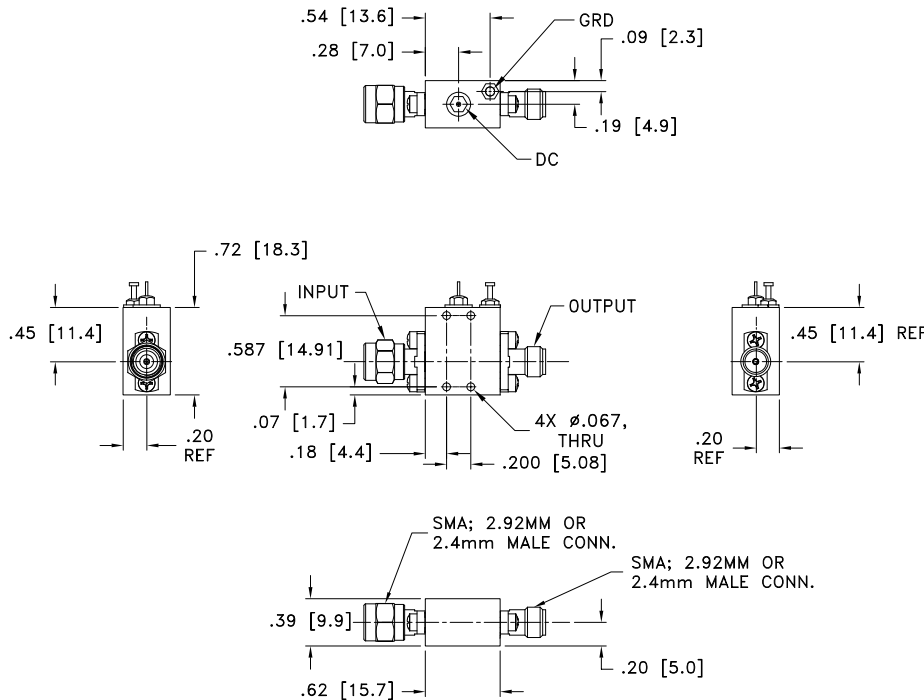
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CONNECTOR SPECIFICATIONS

Description	RF PORT	RF & DC PORT	DC PORT
Connector Type	2.92mm-Female	2.92mm-Male	Filtered Feedthrough

CASE STYLE DRAWING



Weight: 35 grams
Dimensions are in inches [mm]. Tolerances: 2 Pl. ±.03; 3 Pl. ±.015 inches

PRODUCT MARKING*: ZBT-K44-FT+

*Marking may contain other features or characters for internal lot control.

ADDITIONAL INFORMATION IS AVAILABLE ON OUR DASHBOARD

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Performance	Data
	Graphs
	S-Parameter (S2P Files) Data Set (.zip file)
Case Style	Y3206-1
RoHs Status	Compliant
Environmental Ratings	ENV135

NOTES

- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- C. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the standard terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/terms/viewterm.html



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