



COAXIAL

Bias-Tee

ZFBT-4R2G+

50Ω 10 to 4200 MHz Wideband SMA Male/ Female Bracket (Option "B")

KEY FEATURES

- Wideband, 10 to 4200 MHz
- Low Insertion Loss, 0.6 dB Typ.
- Good Isolation, 40 dB Typ.

APPLICATIONS

- Biasing Amplifiers
- Biasing of Laser Diodes
- Biasing of Active Antennas
- DC Return
- DC Blocking
- Test Accessory

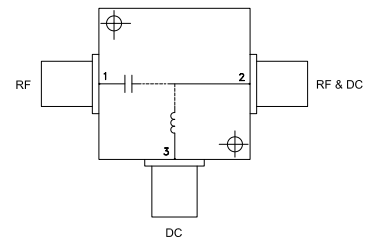
PRODUCT OVERVIEW

Mini-Circuits' ZFBT-4R2G+ is coaxial bias tee providing low insertion loss for applications over a very wide frequency range from 10 to 4200 MHz. It provides 40 dB typical DC-RF isolation and handles up to 0.5A DC current at the input. This model features rugged shielded construction with SMA connectors, providing excellent durability.



Generic photo used for illustration purposes only

FUNCTIONAL DIAGRAM



ELECTRICAL SPECIFICATIONS^{1,2} AT +25°C

Parameter	Frequency (MHz)	Min.	Typ.	Max.	Units
Frequency Range	—	10	—	4200	MHz
Insertion Loss	10 - 100	—	0.15	0.6	dB
	100 - 2100	—	0.6	1.2	
	2100 - 4200	—	0.6	1.6	
Return Loss (RF Port)	10 - 100	20.8	30	—	dB
	100 - 2100	17.7	24	—	
	2100 - 4200	17.7	24	—	
Return Loss (RF & DC Port)	10 - 100	20.8	30	—	dB
	100 - 2100	17.7	24	—	
	2100 - 4200	17.7	24	—	
Isolation (RF/RF & DC Port to DC Port)	10 - 100	20	32	—	dB
	100 - 2100	20	40	—	
	2100 - 4200	20	50	—	
DC Resistance (DC to RF & DC Port)	—	—	4.5	—	Ohm

1. Insertion loss and isolation are guaranteed upto 20 dBm-RF power and 200 mA DC current.
2. Return loss measured with open and short at DC port.

ABSOLUTE MAXIMUM RATINGS³

Operating Case Temperature	-55°C to +100°C
Storage Temperature	-55°C to +100°C
Input Power	30 dBm max.
Voltage at DC Port	30 V max.
Current at DC Port	500 mA

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

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ZFBT-4R2G+
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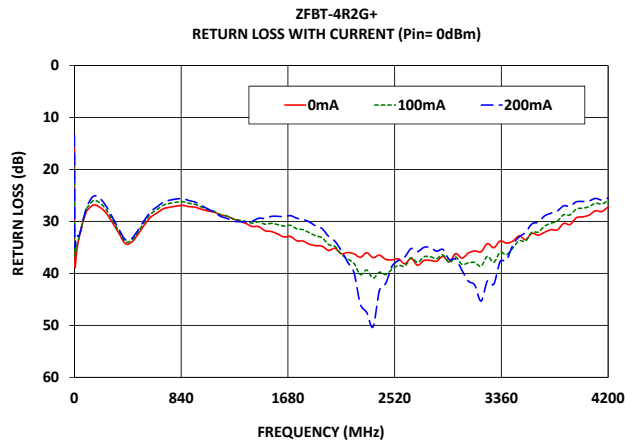
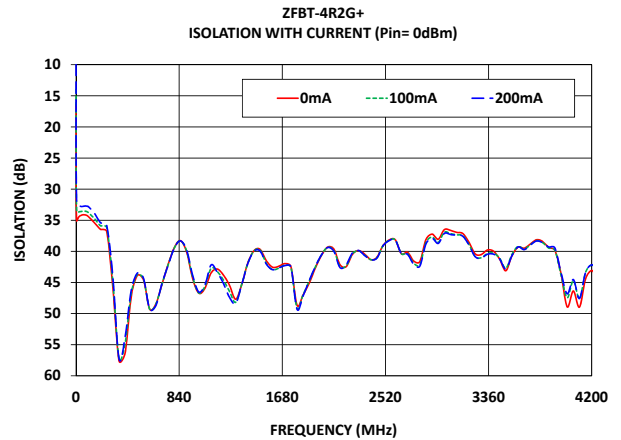
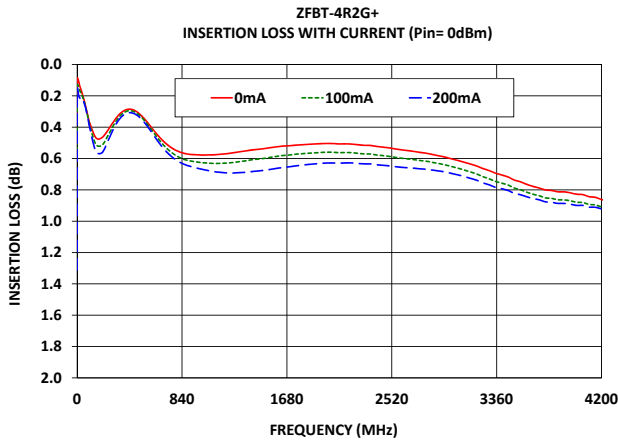
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TYPICAL PERFORMANCE GRAPHS





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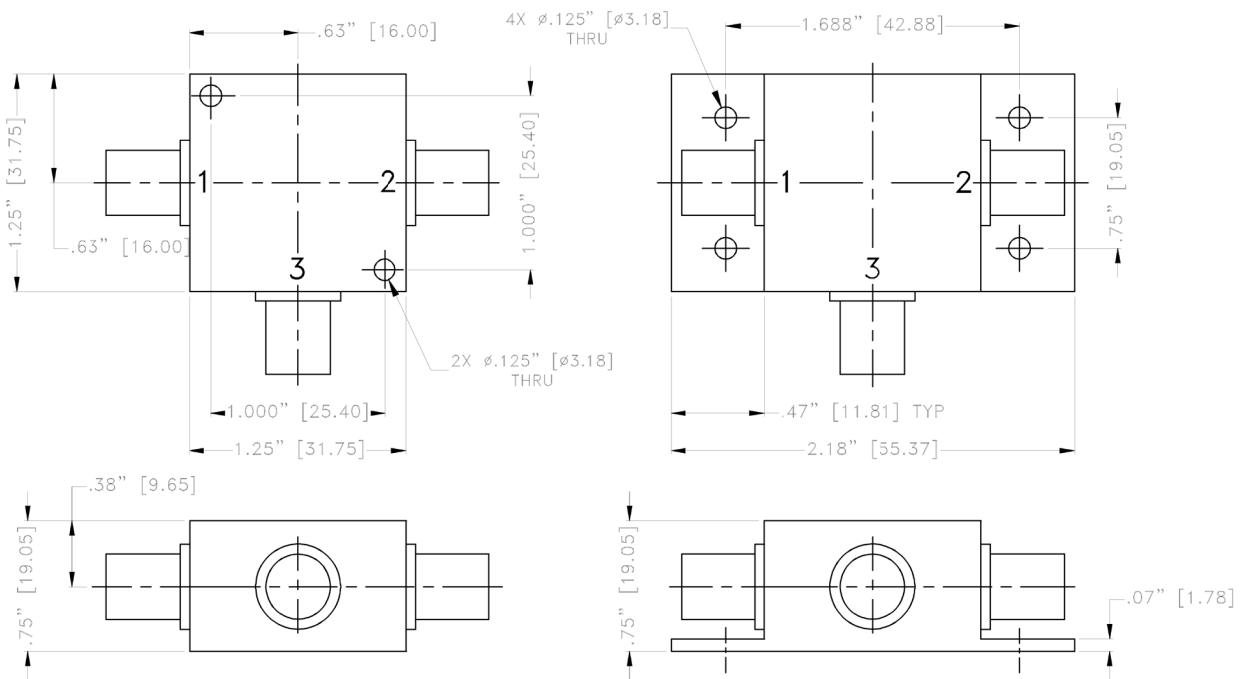
COAXIAL CONNECTIONS

Description	RF PORT	RF & DC PORT	DC PORT	GROUND
Connector Type	SMA Female	SMA Male	SMA Female	—
Orientation	1	2	3	—

CASE STYLE DRAWING

STANDARD

OPTION "B"



Weight: 70 gram

Dimensions are in inches (mm). Tolerances: 2Pl. \pm .03; 3Pl. \pm .015

PRODUCT MARKING*: ZFBT-4R2G+

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





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ADDITIONAL INFORMATION IS AVAILABLE ON OUR DASHBOARD

[CLICK HERE](#)

Performance Data & Graphs	Data Graphs S-Parameter (S3P Files) Data Set (.zip file)
Case Style	K18
RoHS Status	Compliant
Environmental Ratings	ENV28

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

