

# Coaxial Bias-Tee

# ZFBT-4R2G-FT+ ZFBT-4R2G-FT

Wideband 10 to 4200 MHz



CASE STYLE: Y460

Connectors	Model	Price	Qty.
SMA	ZFBT-4R2G-FT	\$59.95	(1-9)
BRACKET (OPTION "B")		\$2.50	(1+)

**+ RoHS compliant in accordance with EU Directive (2002/95/EC)**

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

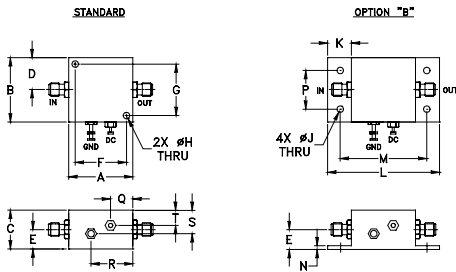
## Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power	30dBm max.
Voltage at DC port	30V max.
Input Current	500mA
DC resistance from DC to RF&DC port	4.5 ohm typ.

## Coaxial Connections

RF	in (SMA female)
RF&DC	out (SMA male)
DC	(feed-through pin)
GROUND	GROUND

## Outline Drawing



## Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	S	wt.	
1.25	1.25	.75	.63	.36	1.000	1.000	.125	.125	.46	31.75	31.75	19.05	16.00	9.14	25.40	25.40	3.18	3.18	11.68
2.18	1.688	.06	.750	.50	.80	.45	.29			55.37	42.88	1.52	19.05	12.70	20.32	11.43	7.37	38	grams

## Features

- wideband, 10-4200 MHz
- low insertion loss, 0.6 dB typ
- feed through terminal per DC port

## Applications

- biasing amplifiers
- biasing of laser diodes
- biasing of active antennas
- DC return
- DC blocking
- test accessory

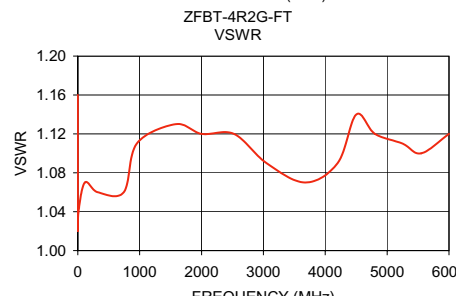
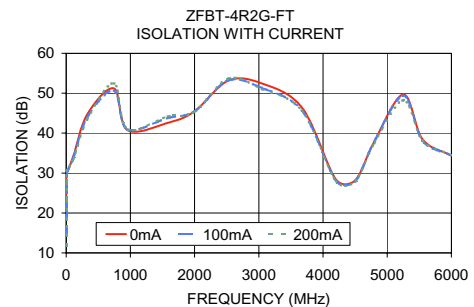
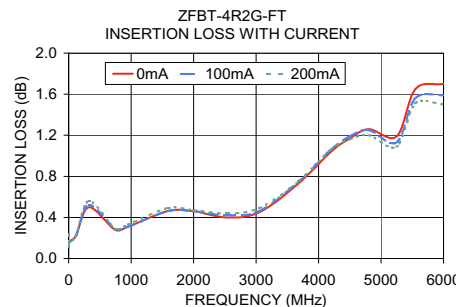
## Bias Tee Electrical Specifications

MODEL NO.	FREQ. (MHz)		INSERTION LOSS* (dB)						ISOLATION*(dB) (RF port to DC port) (RF&DC port to DC port)						VSWR** (:1)								
	f <sub>L</sub>	f <sub>U</sub>	L		M		U		L		M		U		L		M		U				
	10	4200	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Max.	Typ.	Max.	Typ.	Max.	
ZFBT-4R2G-T(+)			0.15	0.6	0.6	1.2	0.6	1.6	—	—	—	—	—	—	—	—	—	1.06	1.2	1.13	1.3	1.13	1.3

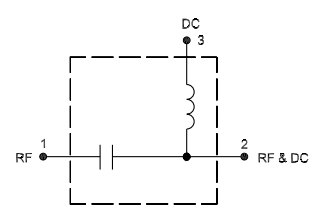
L=low range(f<sub>L</sub> to 10 f<sub>L</sub>) M=mid range(10 f<sub>L</sub> to f<sub>U</sub>/2) U=upper range(f<sub>U</sub>/2 to f<sub>U</sub>)  
 \* Insertion Loss and Isolation are guaranteed up to 20 dBm-RF power and 200mA DC current.  
 \*\* VSWR measured with open and short at DC port.

## Typical Performance Data

Freq. (MHz)	Pin (dBm)	INSERTION LOSS (dB) with current						ISOLATION (dB) (Pin=-10dBm) with current						VSWR (:1)
		0mA	20mA	50mA	100mA	150mA	200mA	0mA	20mA	50mA	100mA	150mA	200mA	
0.10	19.80	0.17	0.17	0.16	0.17	0.20	0.24	19.46	19.04	17.83	14.58	12.66	11.75	1.16
0.27	19.80	0.13	0.13	0.13	0.14	0.14	0.15	25.86	25.53	24.52	21.43	19.31	18.16	1.07
0.53	19.80	0.12	0.12	0.12	0.11	0.11	0.11	29.17	28.98	28.36	26.18	24.40	23.37	1.04
1.06	19.80	0.13	0.13	0.12	0.11	0.12	0.12	30.81	30.74	30.56	29.62	28.62	27.92	1.02
10.00	18.50	0.16	0.17	0.17	0.16	0.16	0.16	30.06	30.07	30.07	30.20	30.38	30.56	1.04
114.75	19.50	0.22	0.25	0.24	0.22	0.22	0.22	34.45	34.49	34.27	33.99	33.83	33.59	1.07
324.25	19.70	0.50	0.55	0.53	0.52	0.53	0.56	44.65	44.61	44.25	43.90	43.91	43.34	1.06
743.25	18.70	0.28	0.31	0.30	0.29	0.29	0.29	51.19	50.50	50.16	50.65	51.69	52.47	1.06
952.75	18.20	0.31	0.33	0.33	0.31	0.32	0.33	40.75	40.80	40.97	40.97	40.93	40.95	1.11
1581.25	18.00	0.46	0.48	0.47	0.46	0.48	0.49	42.58	42.59	43.94	43.77	44.36	44.17	1.13
2000.25	17.10	0.46	0.48	0.47	0.46	0.46	0.47	45.46	45.57	45.73	45.48	46.14	45.28	1.12
2524.00	14.40	0.40	0.42	0.41	0.42	0.43	0.44	53.15	53.72	52.19	53.17	52.67	53.67	1.12
3047.75	14.20	0.45	0.48	0.47	0.46	0.46	0.49	52.46	52.25	51.55	51.33	51.46	50.99	1.09
3676.25	15.10	0.73	0.74	0.75	0.75	0.75	0.75	46.32	47.19	46.36	45.53	46.19	45.65	1.07
4200.00	17.90	1.04	1.07	1.07	1.06	1.05	1.06	28.42	28.36	28.24	28.14	28.01	27.92	1.09
4502.50	-0.60	1.17	1.19	1.18	1.19	1.17	1.16	28.15	28.10	28.05	27.96	27.84	27.87	1.14
4802.00	-0.70	1.26	1.26	1.27	1.25	1.22	1.20	37.95	38.01	38.19	37.93	37.58	37.51	1.12
5251.75	-1.10	1.19	1.17	1.16	1.13	1.11	1.09	49.68	51.04	49.12	49.37	49.13	48.19	1.11
5550.75	-2.00	1.65	1.63	1.60	1.56	1.54	1.51	38.44	38.56	38.36	38.07	37.85	38.19	1.10
6000.00	-2.40	1.70	1.71	1.65	1.59	1.54	1.50	34.37	34.36	34.23	34.40	34.49	34.48	1.12



## electrical schematic



P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 For detailed performance specs & shopping online see Mini-Circuits web site



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RF/IF MICROWAVE COMPONENTS

REV. A  
M98898  
ZFBT-4R2G-FT  
DJ/RS/CP  
070316