

Coaxial Bias-Tee

Wideband 0.1 to 4200 MHz

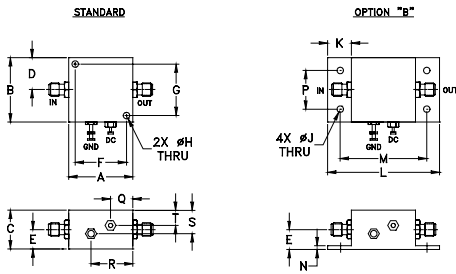
Maximum Ratings

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)
GND	GND

Outline Drawing



Outline Dimensions (inch)

A	B	C	D	E	F	G	H	J	K
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
L	M	N	P	Q	R	S	S	wt.	
2.18	1.688	.06	.750	.50	.80	.45	.29	grams	
55.37	42.88	1.52	19.05	12.70	20.32	11.43	7.37	38	

Features

- wideband, 0.1-4200 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)					
			L		M		U		L		M		U		L		M		U	
	f_L	f_U	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Max.	Typ.	Max.	Typ.	Max.

ZFBT-4R2GW-FT(+) 0.1 4200 0.15 0.8 0.6 1.2 0.6 1.6 — — — — — — 1.06 1.6 1.13 1.3 1.13 1.3

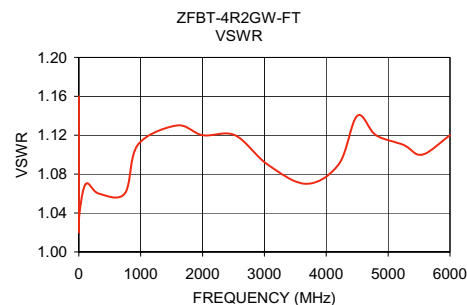
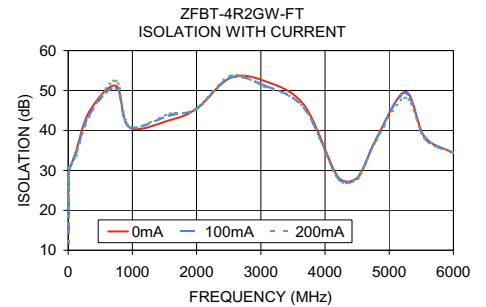
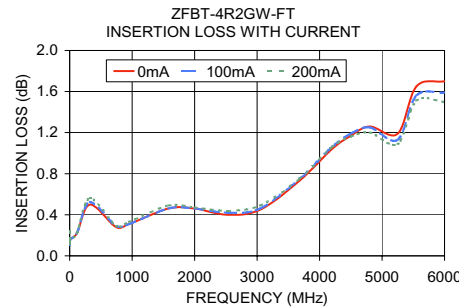
L= low range(f_L to 10 f_L) M=mid range(10 f_L to $f_U/2$) U=upper range ($f_U/2$ to f_U)

* Insertion Loss 1 dB Max. and Isolation 7 dB Min. 0.1 to 0.3 MHz
Insertion Loss and Isolation are guaranteed up to 20 dBm-RF power and 200mA DC current.

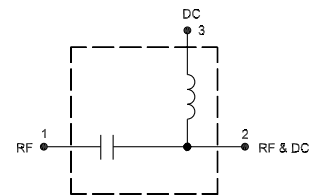
** VSWR measured with open and short at DC port.

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



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RF/IF MICROWAVE COMPONENTS

REV. A
M98898
ZFBT-4R2GW-FT
DJ/RS/CP
070316

ZFBT-4R2GW-FT+ ZFBT-4R2GW-FT



CASE STYLE: Y460

Connectors	Model	Price	Qty.
SMA	ZFBT-4R2GW-FT	\$79.95	(1-9)
BRACKET (OPTION "B")		\$2.50	(1+)

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

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