Coaxial

Bias-Tee

Wideband 0.1 to 4200 MHz

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)

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

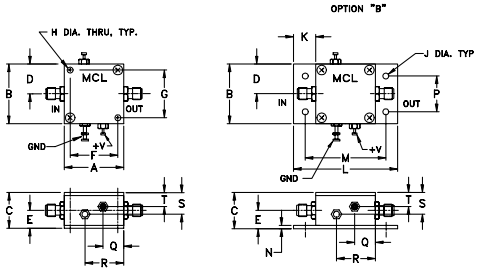
Maximum Ratings

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	+15 (feed-through pin)
GND	GND

Outline Drawing



Outline Dimensions (inch / mm)

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)

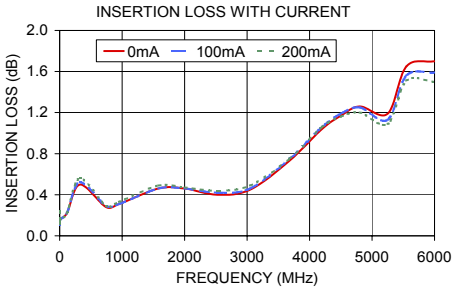
* Insertion Loss 1 dB Max. and Isolation 7 dB Min. 0.1 to 0.3 MHz
Insertion Loss and Isolation are guaranteed up to 20 dBm-RF power and 200mA DC current.

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

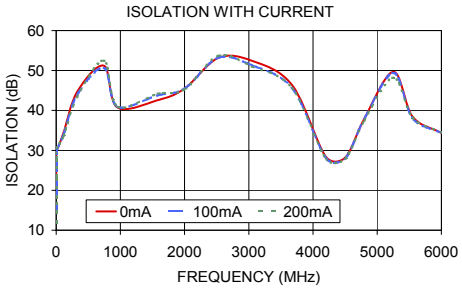
Typical Performance Data

Freq. (MHz)	Pin (dBm)	INSERTION LOSS (dB) with current 0mA	20mA	50mA	100mA	150mA	200mA	ISOLATION (dB) (Pin=-10dBm) with current 0mA	20mA	50mA	100mA	150mA	200mA	VSWR (:1)
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

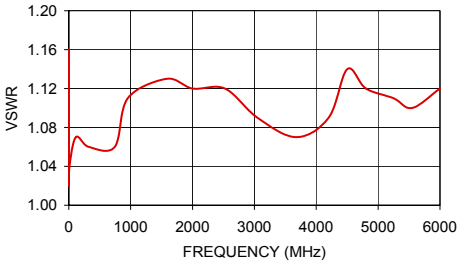
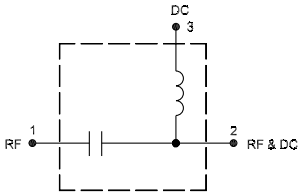
ZFBT-4R2GW-FT
INSERTION LOSS WITH CURRENT



ZFBT-4R2GW-FT
ISOLATION WITH CURRENT



ZFBT-4R2GW-FT
VSWR



electrical schematic