

# Coaxial Bias-Tee

50Ω Wideband 10 to 2800 MHz

## Maximum Ratings

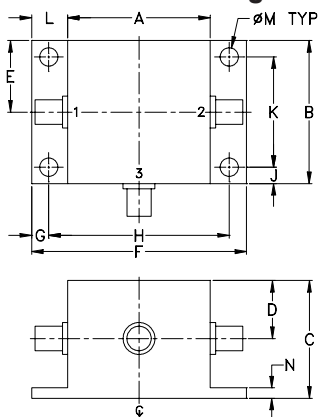
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power	30 dBm max.
Voltage at DC port	30 V max.
Input Current	1.5A*
DC resistance from DC to RF&DC port	0.5 ohm typ.

\* Max Current 1.2 A above 80°C.  
Permanent damage may occur if any of these limits are exceeded.

## Coaxial Connections

RF	1 (SMA female)
RF&DC	2 (SMA male)
DC	3 (SMA female)

## Outline Drawing



## Outline Dimensions (inch mm)

A	B	C	D	E	F	G
1.25	1.25	.94	.47	.63	2.19	.25
31.75	31.75	23.88	11.94	16.00	55.63	6.35
H	J	K	L	M	N	wt
1.687	.25	.750	.47	.125	.10	grams
42.85	6.35	19.05	11.94	3.18	2.54	60.0

## Features

- wideband, 10 to 2800 MHz
- low insertion loss, 0.6 dB typ.
- good isolation, 45 dB typ.
- high current, 1.5A

## Applications

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

## Bias-Tee Electrical Specifications

FREQUENCY (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 <sub>L</sub>	f <sub>U</sub>	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Max.	Typ.	Max.	Typ.	Max.
10	2800	0.5	1.0	0.6	1.0	0.8	1.6	50	30	45	30	30	20	1.16	1.35	1.10	1.20	1.08	1.35

L= low range (f<sub>L</sub> to 10 f<sub>L</sub>)

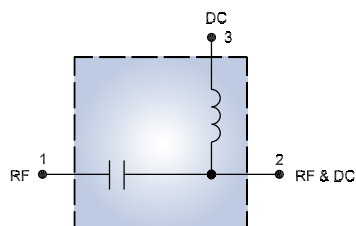
M= mid range (10 f<sub>L</sub> to f<sub>U</sub>/2)

U= upper range (f<sub>U</sub>/2 to f<sub>U</sub>)

## Typical Performance Data

Freq. (MHz)	INSERTION LOSS (dB)		ISOLATION (dB)				VSWR (:1)			
	0A	1.5A	RF-DC		RF&DC-DC		RF		RF/DC	
			0A	1.5A	0A	1.5A	0A	1.5A	0A	1.5A
10.00	0.29	0.42	54.81	47.57	54.15	47.33	1.06	1.24	1.06	1.25
50.00	0.42	0.41	68.07	64.48	73.12	65.97	1.10	1.10	1.10	1.12
100.00	0.64	0.41	52.01	60.62	60.00	57.83	1.14	1.06	1.14	1.07
300.00	0.40	0.37	59.41	59.59	57.55	57.53	1.07	1.07	1.07	1.07
500.00	0.40	0.35	51.13	51.46	51.60	52.76	1.05	1.06	1.06	1.07
700.00	0.47	0.41	45.14	46.61	43.35	46.15	1.05	1.07	1.07	1.08
900.00	0.50	0.47	55.11	48.80	43.14	41.54	1.06	1.06	1.08	1.09
950.00	0.51	0.48	55.06	51.87	43.12	41.45	1.06	1.06	1.08	1.06
1000.00	0.51	0.46	52.18	56.35	44.66	41.54	1.06	1.06	1.08	1.09
1100.00	0.51	0.47	45.30	53.11	50.89	43.76	1.06	1.05	1.08	1.10
1200.00	0.51	0.47	42.03	45.81	44.47	47.09	1.06	1.06	1.08	1.09
1300.00	0.51	0.47	41.45	43.19	40.75	43.35	1.06	1.05	1.09	1.09
1400.00	0.52	0.48	40.88	42.11	38.26	39.95	1.06	1.05	1.10	1.09
1450.00	0.53	0.47	40.44	41.52	37.23	38.58	1.06	1.05	1.10	1.10
1600.00	0.57	0.51	37.75	38.77	34.31	35.38	1.07	1.06	1.11	1.10
1800.00	0.65	0.57	35.76	36.46	33.89	33.05	1.08	1.07	1.14	1.11
2000.00	0.78	0.67	35.26	36.66	35.48	34.12	1.09	1.08	1.15	1.12
2200.00	0.84	0.79	35.39	35.52	34.71	34.08	1.09	1.10	1.15	1.10
2400.00	0.94	0.88	35.29	35.6	32.29	32.06	1.11	1.12	1.17	1.11
2800.00	1.41	1.37	33.34	35.69	28.98	28.71	1.22	1.24	1.25	1.21

## Electrical Schematic



### 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-Circuits' applicable established test performance criteria and measurement instructions.  
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# ZFBT-282-1.5A+



CASE STYLE: V1381

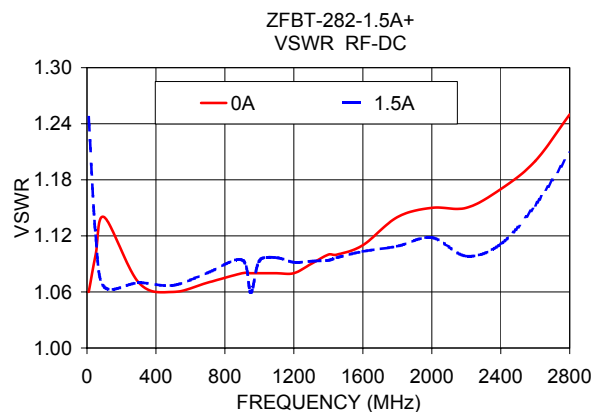
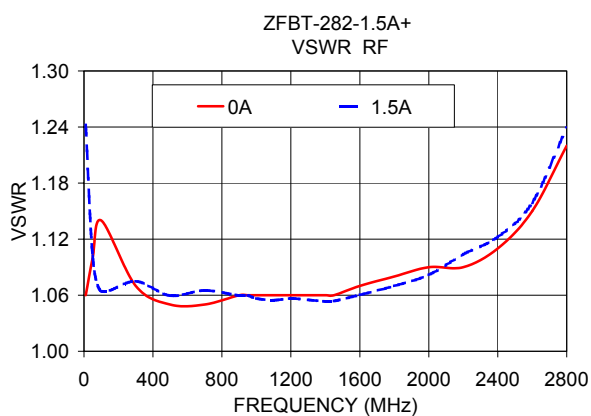
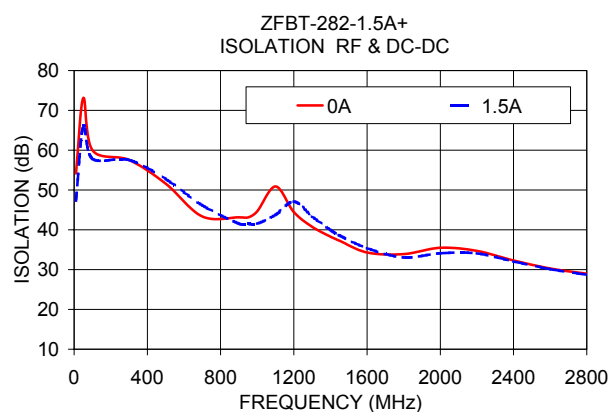
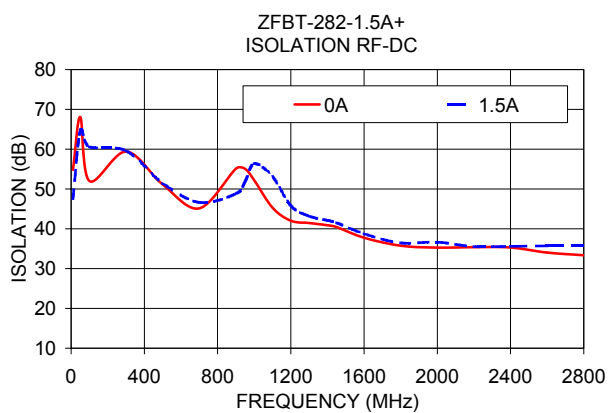
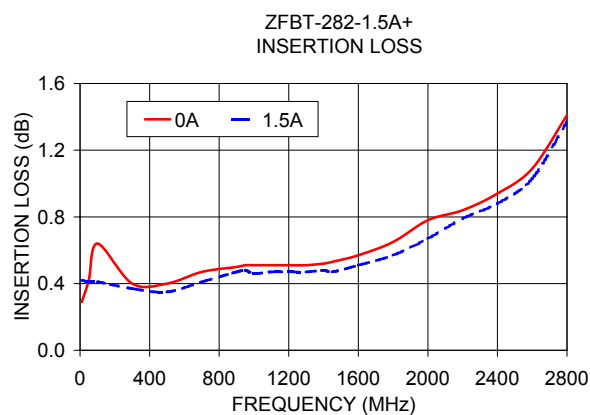
Connectors	Model	Price	Qty.
SMA	ZFBT-282-1.5A+	\$59.95	(1-9)

### +RoHS Compliant

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

# Performance Charts

# ZFBT-282-1.5A+



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