

# Coaxial Bias-Tee

## ZX85-12G+

50Ω Wideband 0.2 to 12000 MHz

### Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power	30dBm
Voltage at DC port	25V
DC Current	400mA
DC resistance from DC to RF&DC port	1.8Ω

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

### Coaxial Connections

RF	OUT
RF&DC	IN
DC	V+

### Features

- wideband, 0.2 to 12000 MHz
- low insertion loss, 0.6 dB typ.
- high current capability, 400 mA
- small size 0.74" x 0.75" x 0.46"
- rugged unibody construction
- protected by US patent 6,790,049
- additional patent pending

### Applications

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



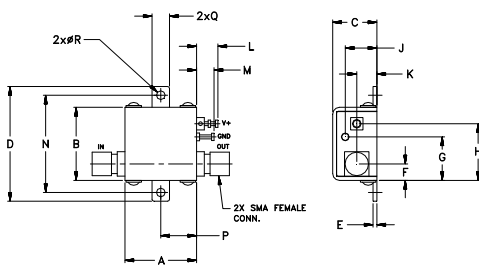
CASE STYLE: GC957

Connectors	Model	Price	Qty.
SMA	ZX85-12G-S+	\$99.95 ea.	(1-9)

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

The +suffix has been added in order to identify RoHS Compliance. There has been no change to the model's material, form, fit, or function. See our web site for RoHS Compliance methodologies and qualifications.

### Outline Drawing



### Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J
.74	.75	.46	1.18	.04	.17	.45	.59	.33
18.80	19.05	11.68	29.97	1.02	4.32	11.43	14.99	8.38
K	L	M	N	P	Q	R	wt	
.21	.22	.18	1.00	.37	.18	.106	grams	
5.33	5.59	4.57	25.40	9.40	4.57	2.69	23	

### Bias-Tee Electrical Specifications

FREQ. (MHz)	INSERTION LOSS* (dB)						VSWR* (:1)						
	f <sub>L</sub>	f <sub>U</sub>	L		M		U		L		M		U
0.2	12000	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.
		0.1	0.5	0.6	1.5	1.0	2.5	1.1	1.5	1.2	1.5	1.2	1.5

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)

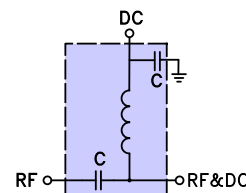
U=upper range (f<sub>U</sub>/2 to f<sub>U</sub>)

\*Insertion Loss and VSWR are guaranteed up to 20 dBm RF power and 200mA DC current.

### Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB) with current		VSWR (:1) with current	
	0mA	200mA	0mA	200mA
0.20	0.09	0.25	1.17	1.18
700.00	0.52	0.93	1.10	1.05
1600.00	1.21	0.65	1.24	1.25
2400.00	0.84	1.14	1.14	1.15
3200.00	0.67	0.76	1.05	1.06
4000.00	0.76	0.77	1.07	1.06
4800.00	0.71	0.81	1.11	1.10
5600.00	0.66	0.76	1.10	1.11
6200.00	0.65	0.73	1.08	1.11
7000.00	0.69	0.75	1.07	1.09
7800.00	0.88	0.80	1.11	1.09
8600.00	1.11	1.11	1.11	1.08
9200.00	1.11	1.15	1.07	1.07
10000.00	1.21	1.20	1.02	1.07
12000.00	1.37	1.39	1.15	1.11

### Electrical Schematic



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Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet 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/MCLStore/terms.jsp](http://www.minicircuits.com/MCLStore/terms.jsp).

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