

# Coaxial Bias-Tee

50Ω Wideband 0.2 to 12000 MHz

## ZX85-12G+



CASE STYLE: GC957

### 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

### Applications

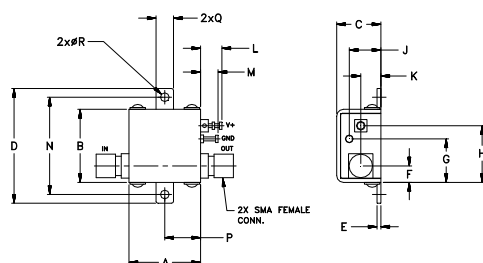
- biasing amplifiers
- biasing of laser diodes
- biasing of active antennas
- DC return
- DC blocking
- test accessory

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

### +RoHS Compliant

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

### Outline Drawing



### Outline Dimensions (inch)

| 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.<br>(MHz) |                | INSERTION LOSS*<br>(dB) |      |      |      |      |      | VSWR*<br>(:1) |      |      |      |      |      |
|----------------|----------------|-------------------------|------|------|------|------|------|---------------|------|------|------|------|------|
|                |                | L                       |      | M    |      | U    |      | L             |      | M    |      | U    |      |
| f <sub>L</sub> | f <sub>U</sub> | Typ.                    | Max. | Typ. | Max. | Typ. | Max. | Typ.          | Max. | Typ. | Max. | Typ. | Max. |
| 0.2            | 12000          | 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)

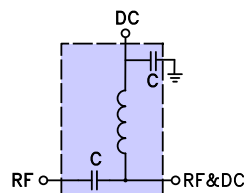
U=upper range(f<sub>U</sub>/2 to f<sub>U</sub>)

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

### Typical Performance Data

| FREQUENCY<br>(MHz) | INSERTION LOSS (dB)<br>with current |       | VSWR (:1)<br>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



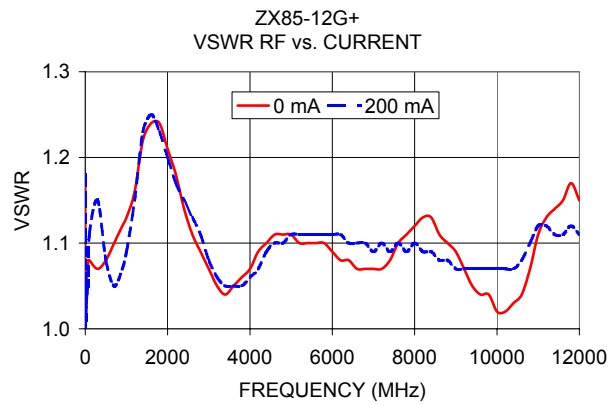
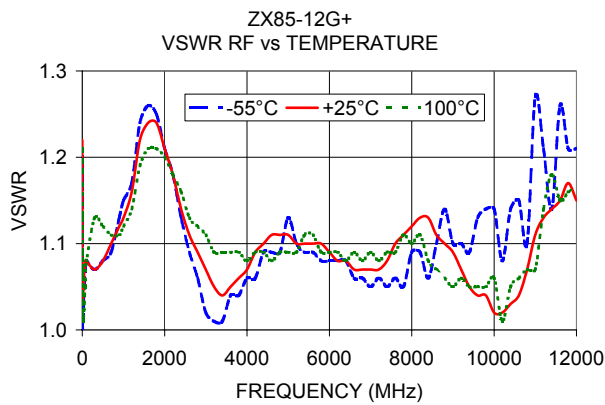
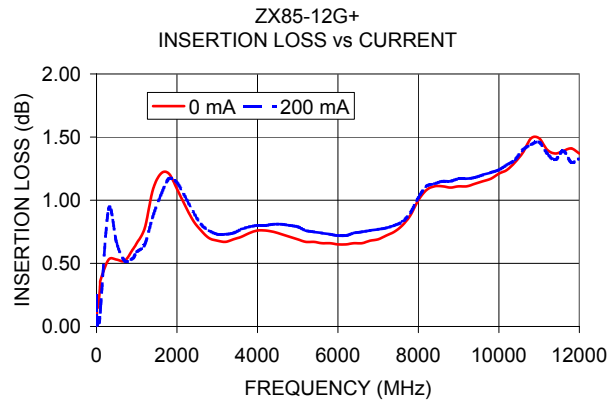
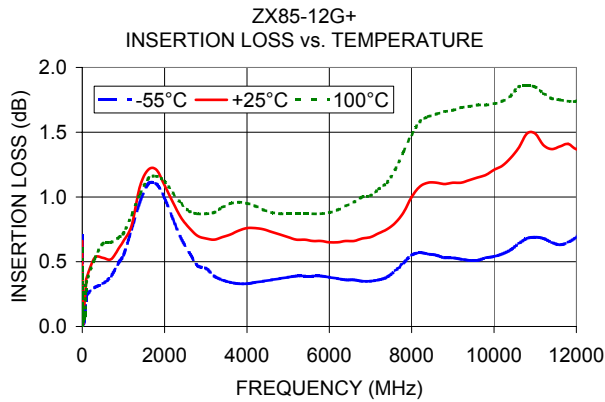
### Notes

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Page 1 of 2



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