

# Coaxial Bias-Tee

Wideband 0.1 to 6000 MHz

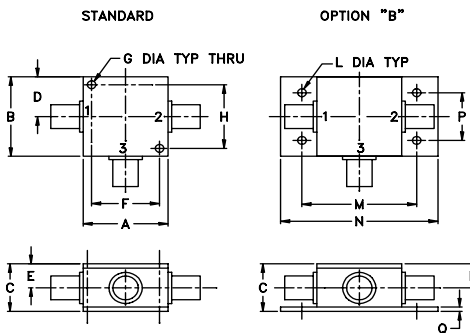
## Maximum Ratings

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

## Outline Drawing



## Outline Dimensions (inch)

| A     | B     | C     | D     | E    | F     | G    | H     |
|-------|-------|-------|-------|------|-------|------|-------|
| 1.25  | 1.25  | .75   | .63   | .38  | 1.00  | .125 | 1.000 |
| 31.75 | 31.75 | 19.05 | 16.00 | 9.65 | 25.40 | 3.18 | 25.40 |

| J  | K  | L    | M     | N     | P     | Q    | Wt    |
|----|----|------|-------|-------|-------|------|-------|
| -- | -- | .125 | 1.688 | 2.18  | .75   | .07  | grams |
| -- | -- | 3.18 | 42.88 | 55.37 | 19.05 | 1.78 | 70.0  |

## Features

- wideband, 0.1 to 6000 MHz
- low insertion loss, 0.6 dB typ.
- good isolation, 40 dB typ.

## 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    |      |
|           |             | Typ.                 | Max. | Typ. | Max. | Typ. | Max. | Typ.                                                        | Min. | Typ. | Min. | Typ. | Min. | Typ.        | Max. | Typ. | Max. | Typ. | Max. |

|             |     |      |      |     |     |     |     |     |    |    |    |    |    |    |      |     |      |     |      |     |
|-------------|-----|------|------|-----|-----|-----|-----|-----|----|----|----|----|----|----|------|-----|------|-----|------|-----|
| ZFBT-6GW(+) | 0.1 | 6000 | 0.15 | 0.8 | 0.6 | 1.4 | 1.0 | 2.2 | 25 | 15 | 40 | 20 | 30 | 17 | 1.06 | 1.6 | 1.13 | 1.3 | 1.13 | 1.5 |
|-------------|-----|------|------|-----|-----|-----|-----|-----|----|----|----|----|----|----|------|-----|------|-----|------|-----|

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  $f_U$ )

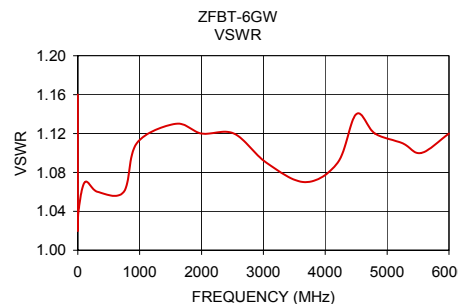
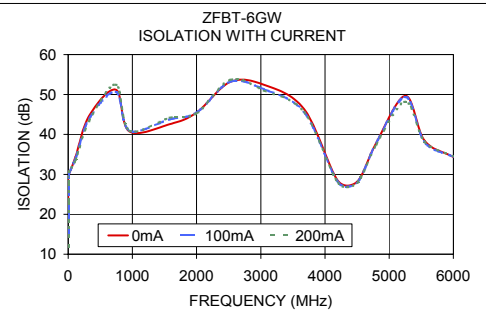
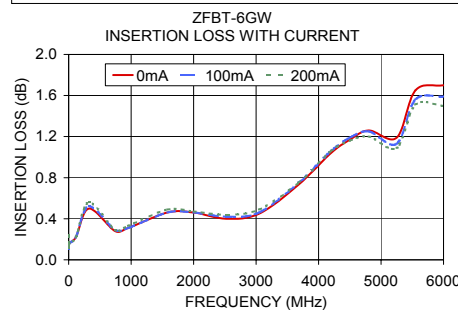
\* Insertion Loss 1 dB Max. and Isolation 7 dB Min. 0.1 to 0.3 MHz.

Insertion Loss and Isolation are guaranteed up to 20 dBm-RF power and 200mA DC current.

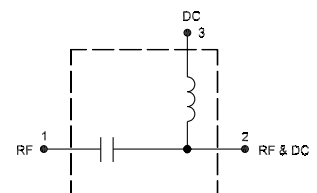
\*\* VSWR measured with open and short at DC port.

## 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 |           |
|             |           | 0mA                              | 20mA | 50mA | 100mA | 150mA | 200mA | 0mA                                      | 20mA | 50mA | 100mA | 150mA | 200mA |           |



## electrical schematic



ZFBT-6GW+  
ZFBT-6GW



CASE STYLE: K18

| Connectors           | Model    | Price   | Qty.  |
|----------------------|----------|---------|-------|
| SMA                  | ZFBT-6GW | \$89.95 | (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.