

1 GHz to 6 GHz SMA High Current Bias Tee, Rated 7 Amps and 100 Volts, DC Pin

The FMBT1656 is a High Current Bias Tee that operates from 1 GHz to 6 GHz. This general purpose Bias Tee is used in applications that require a source of DC voltage and current to be injected into an RF circuit without affecting the RF signal through the main transmission path. The module is designed for a 50 ohm input/output impedance and displays impressive typical performance that includes 0.5 dB insertion loss, 25 dB RF to Bias Port Isolation, and 1.2:1 VSWR. The Bias Tee is rated for 7 Amps and +100 Volts max DC voltage. Maximum RF input power handling is 50W. The compact package uses an SMA Male connector at the RF input and an SMA Female connector at the RF output. A Solder Post Pin is used for the DC port. Operational Temperature is -55°C to +105°C.

Electrical Specifications

| Description | Min | Typ | Max | Units |
|----------------------|-----|-------|-------|-------|
| Frequency Range | 1 | | 6 | GHz |
| Impedance | | 50 | | Ohms |
| VSWR | | 1.2:1 | 1.5:1 | |
| Insertion Loss | | 0.5 | 1 | dB |
| RF to Bias Isolation | | 25 | | dB |
| DC Voltage | | | 100 | Vdc |
| DC Current | | | 7 | A |
| Input Power (CW) | | | 50 | Watts |
| 3dB Bandwidth | 8 | | 10 | KHz |

Electrical Specification Notes:
Values at +25°C, sea level.

Mechanical Specifications

| Size | |
|--------|--------------------|
| Length | 1.29 in [32.77 mm] |
| Width | 0.85 in [21.59 mm] |
| Height | 0.55 in [13.97 mm] |
| Weight | 0.11 lbs [49.9 g] |

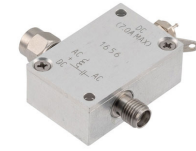
Environmental Specifications

| Temperature | |
|-----------------|-------------------|
| Operating Range | -55 to +105 deg C |
| Storage Range | -60 to +90 deg C |

Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:



Configuration:

- RF Port Connector: SMA Male
- DC/RF Port Connector: SMA Female
- DC Port Connector: DC Pin

Features:

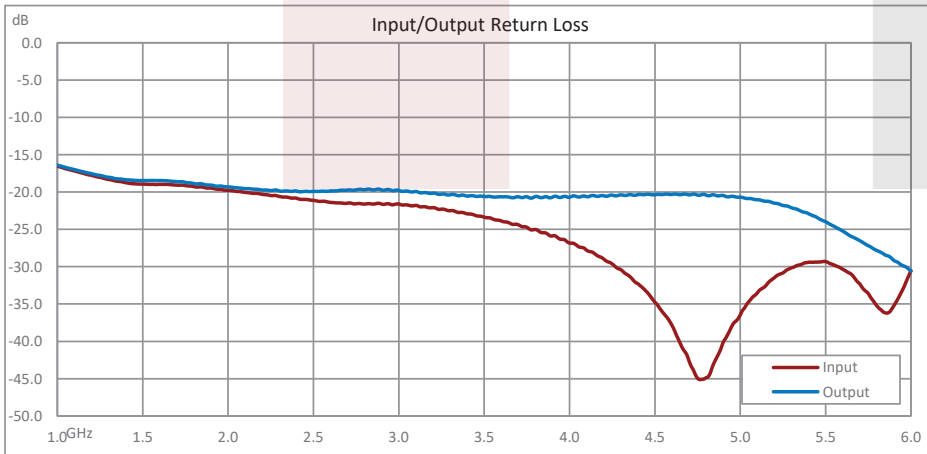
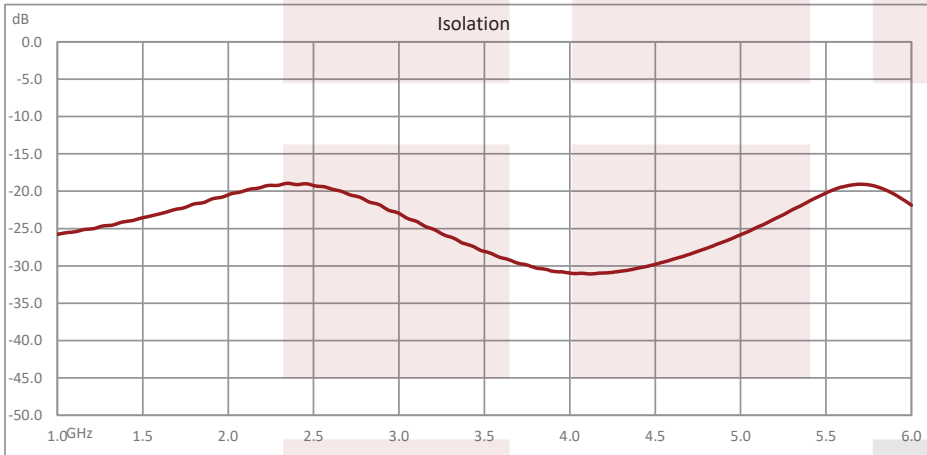
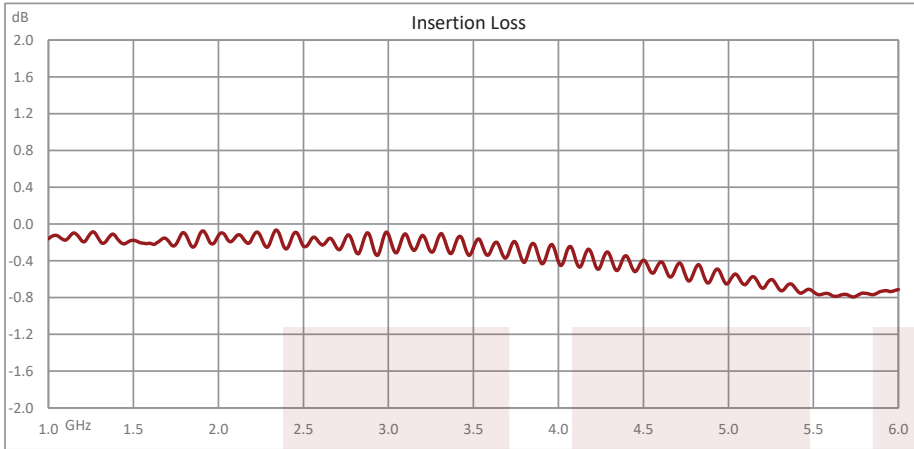
- High Current Bias Tee
- 1 GHz to 6 GHz Frequency Range
- Insertion Loss: 0.5 dB Typ
- Isolation: 25 dB typ
- VSWR: 1.2:1 typ
- RF Input Power Handling 50W max
- 50 Ohms Input and Output Matched
- SMA Male RF Input Connector
- SMA Female RF Output Connector
- DC Connector: Solder Post Pin
- Operational Temperature: -55°C to +105°C
- Rating: 7 Amps DC Current and +100V max DC Voltage

Applications:

- Biasing for Antenna Amplifiers, Laser Diodes, Photo Diodes, Optical Modulators
- Test & Measurement
- SATCOM
- Wireless Communications Systems
- Power over Ethernet
- Base Stations and Radios

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Typical Performance Data



1 GHz to 6 GHz SMA High Current Bias Tee, Rated 7 Amps and 100 Volts, DC Pin from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

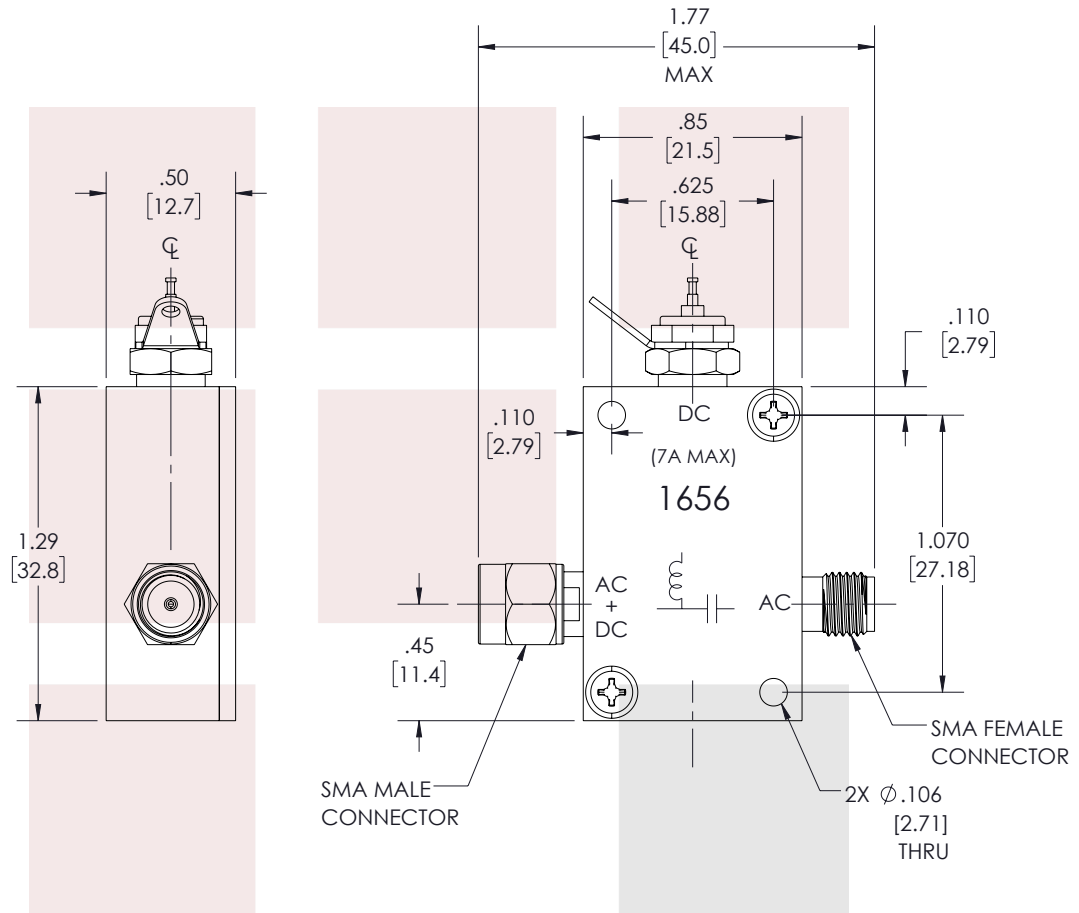
For additional information on this product, please click the following link: [1 GHz to 6 GHz SMA High Current Bias Tee, Rated 7 Amps and 100 Volts, DC Pin FMBT1656](#)

URL: <https://www.fairviewmicrowave.com/bias-tee-1-6-ghz-7000-ma-100-volts-dc-fmbt1656-p.aspx>

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| REVISIONS | | | |
|-----------|-----------------|------------|----------|
| REV. | DESCRIPTION | DATE | APPROVED |
| A | INITIAL RELEASE | 06/03/2022 | TGALLA |



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TITLE

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UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES
DIMENSIONS IN [] ARE MILLIMETERS

TOLERANCES:

.X = ±.2 [5.08] FRACTIONS ± 1/32
.XX = ±.02 [.51]
.XXX = ±.005 [.13] ANGLES ± 1°

CABLE LENGTH (L) TOLERANCES:

L ≤ 12 [305] = +1 [25] / -0
12 [305] < L ≤ 60 [1524] = +2 [51] / -0
60 [1524] < L ≤ 120 [3048] = +4 [102] / -0
120 [3048] < L ≤ 300 [7620] = +6 [152] / -0
300 [7620] < L = +5%L / -0

THIRD-ANGLE PROJECTION



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SHEET 1 OF 1

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

SCALE N/A

| | | | | |
|-----------|--------------------|-----------------------|----------------------|----------|
| SIZE A | CAGE CODE 3FKR5 | DRAWN BY BPUCHASKI | ITEM NO. FMBT1656 | REV A |
|-----------|--------------------|-----------------------|----------------------|----------|

T-Rev.D