

## 50 KHz to 18 GHz SMA Broadband Bias Tee, Rated to 750 mA and 25 Volts, DC SMA Connector

The FMBT1633 is a Broadband Bias Tee that operates from 50 KHz to 18 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 1 dB insertion loss, 50 dB RF to Bias Port Isolation, and 1.4:1 VSWR. The Bias Tee is rated for 0.75 Amps and +25 Volts max DC voltage. The compact package uses an SMA Female connector at the RF input and an SMA Female connector at the RF output. A Female SMA Connector is used for the DC Port. Operational Temperature is +15°C to +30°C.

### Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	50KHz		18	GHz
Impedance		50		Ohms
VSWR		1.4:1	1.8:1	
Insertion Loss		1	1.5	dB
RF to Bias Isolation		50		dB
DC Voltage			25	Vdc
DC Current			750	mA
Rise Time		9		ps

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

### Mechanical Specifications

Size	
Length	1.2 in [30.48 mm]
Width	0.63 in [16 mm]
Height	0.515 in [13.08 mm]
Weight	0.11 lbs [49.9 g]

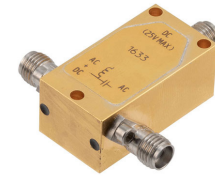
### Environmental Specifications

Temperature	
Operating Range	+15 to +30 deg C

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

### Plotted and Other Data

Notes:



### Configuration:

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

### Features:

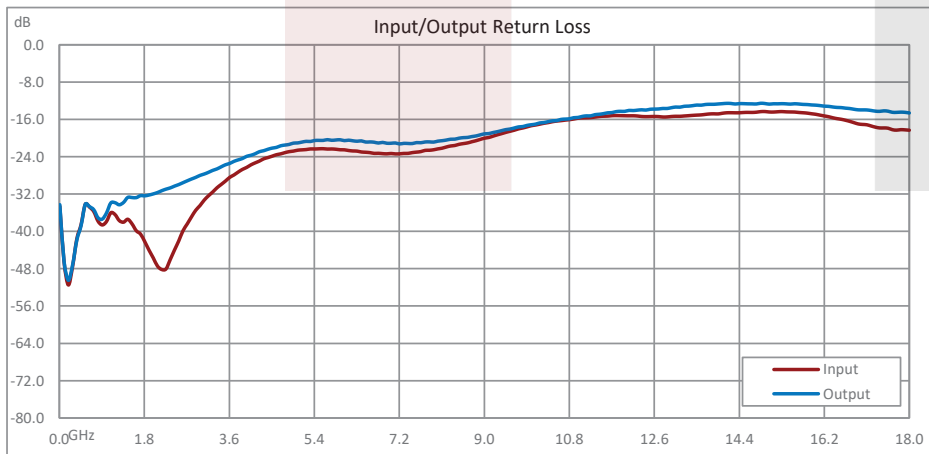
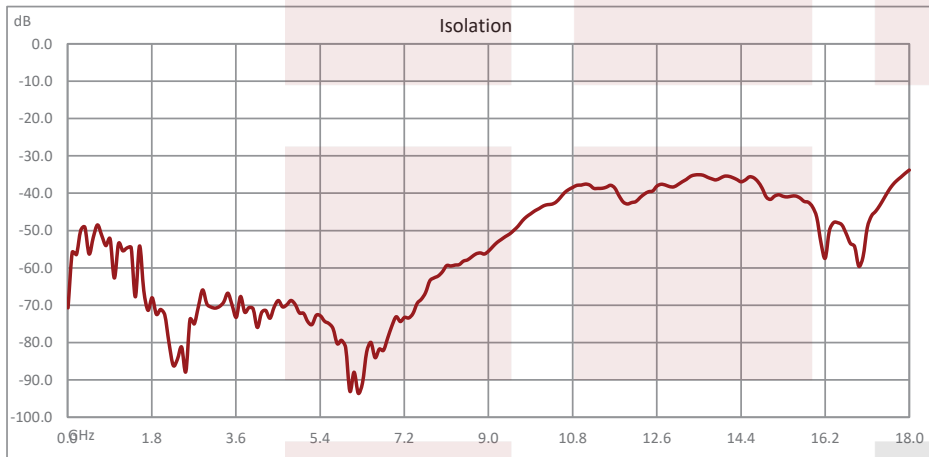
- General Purpose Broadband Bias Tee
- 50 KHz to 18 GHz Frequency Range
- Insertion Loss: 1 dB Typ
- Isolation: 50 dB typ
- VSWR: 1.4:1 typ
- 50 Ohms Input and Output Matched
- SMA Female RF Input Connector
- SMA Female RF Output Connector
- DC Connector: SMA Female
- Operational Temperature: +15°C to +30°C
- Rating: 0.75A max DC Current and +25V 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

Fairview Microwave  
301 Leora Ln., Suite 100  
Lewisville, TX 75056  
Tel: 1-800-715-4396 / (972) 649-6678  
Fax: (972) 649-6689  
[www.fairviewmicrowave.com](http://www.fairviewmicrowave.com)  
[sales@fairviewmicrowave.com](mailto:sales@fairviewmicrowave.com)

**Typical Performance Data**



50 KHz to 18 GHz SMA Broadband Bias Tee, Rated to 750 mA and 25 Volts, DC SMA Connector 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.

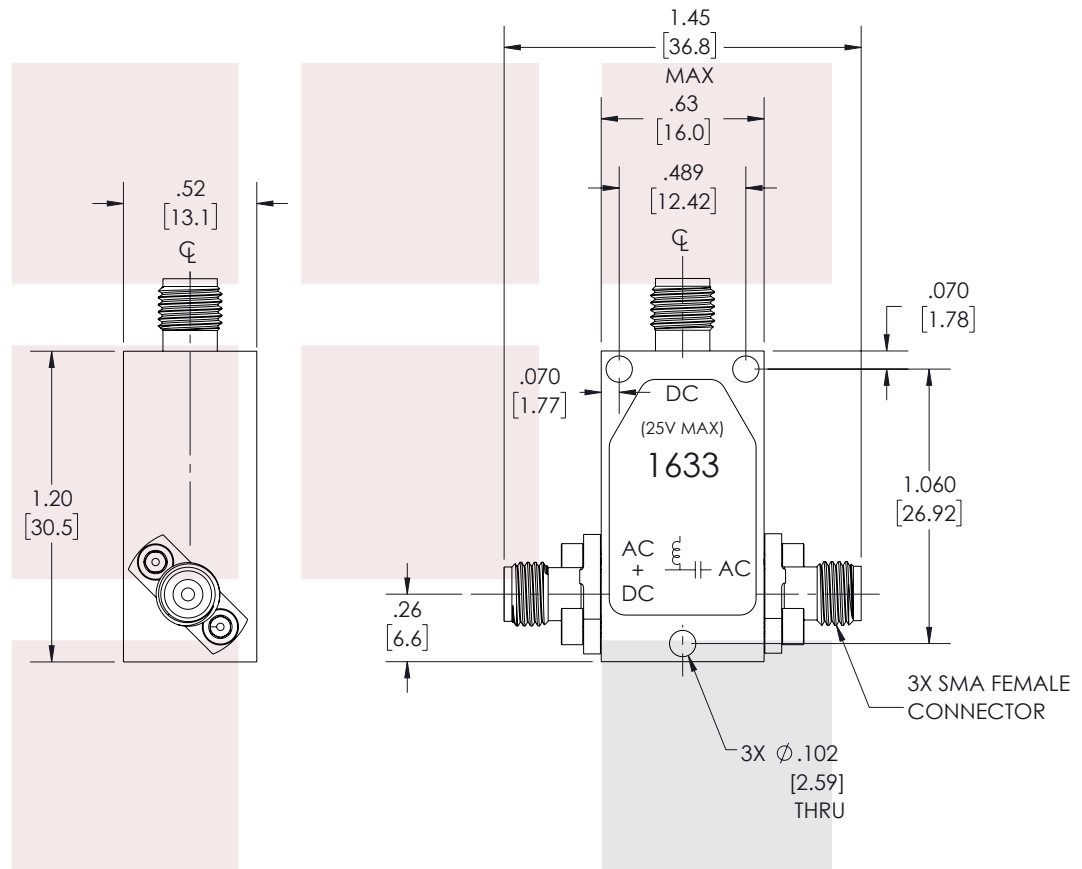
For additional information on this product, please click the following link: [50 KHz to 18 GHz SMA Broadband Bias Tee, Rated to 750 mA and 25 Volts, DC SMA Connector FMBT1633](#)

URL: <https://www.fairviewmicrowave.com/bias-tee-0.05-mhz-18-ghz-750-ma-25-volts-dc-fmbt1633-p.aspx>

The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Fairview Microwave reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Fairview Microwave does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Fairview Microwave does not assume any liability arising out of the use of any part or documentation.



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



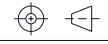
THESE COMMODITIES, TECHNOLOGY OR SOFTWARE WERE EXPORTED FROM THE UNITED STATES IN ACCORDANCE WITH THE EXPORT ADMINISTRATION REGULATIONS. DIVERSION CONTRARY TO U.S. LAW PROHIBITED.

TITLE  
50 KHz to 18 GHz SMA Broadband Bias Tee, Rated to 750 mA and 25 Volts, DC SMA Connector

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

TOLERANCES:		CABLE LENGTH (L) TOLERANCES:	
.X = ±.2 [5.08]	FRACTIONS ± 1/32	L ≤ 12 [305] = +1 [25] / -0	
.XX = ±.02 [51]	ANGLES ± 1°	12 [305] < L ≤ 60 [1524] = +2 [51] / -0	
.XXX = ±.005 [13]		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



THE INFORMATION AND DESIGN IN THIS DOCUMENT IS THE PROPERTY OF FAIRVIEW MICROWAVE CORPORATION. ALL RIGHTS RESERVED.

SHEET 1 OF 1

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

SCALE N/A

SIZE A	CAGE CODE 3FKR5	DRAWN BY BPUCHASKI	ITEM NO. FMBT1633	REV A
-----------	--------------------	-----------------------	----------------------	----------

T-Rev.D