

12 KHz to 40 GHz, 2.92mm Broadband Bias Tee, Rated 150 mA and 16 Volts, DC BNC Connector

The FMBT1645 is a Wideband Bias Tee that operates from 12 KHz to 40 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 1.5 dB insertion loss, 50 dB RF to Bias Port Isolation, and 1.7:1 VSWR. The Bias Tee is rated for 150 mA and +16 Volts max DC voltage. The compact package uses a 2.92mm Female connector at the RF input and a 2.92mm Female connector at the RF output. A Female BNC Connector is used for the DC Port. Operational Temperature is +15°C to +30°C.

Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	12KHz		40	GHz
Impedance		50		Ohms
VSWR		1.7:1	2.5:1	
Insertion Loss		1.5	3	dB
RF to Bias Isolation		50		dB
DC Voltage			16	Vdc
DC Current			150	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	0.5 in [12.7 mm]
Weight	0.11 lbs [49.9 g]

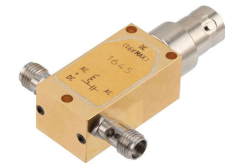
Environmental Specifications

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: 2.92mm Female
- DC/RF Port Connector: 2.92mm Female
- DC Port Connector: BNC Female

Features:

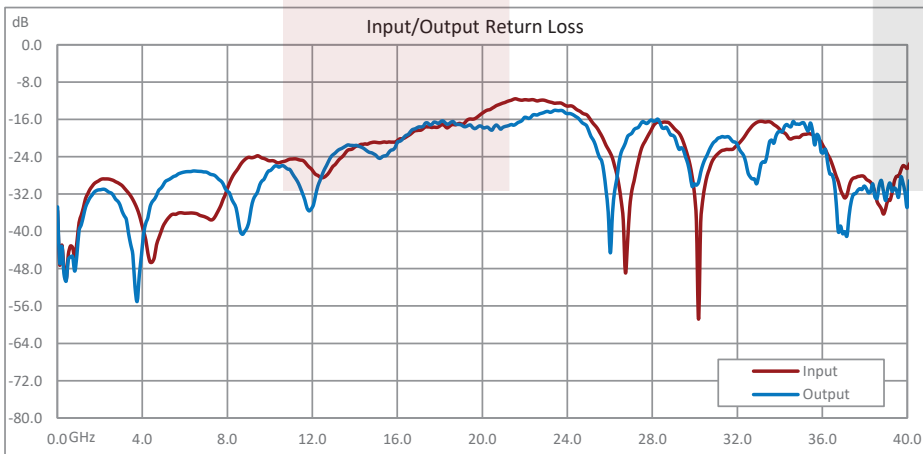
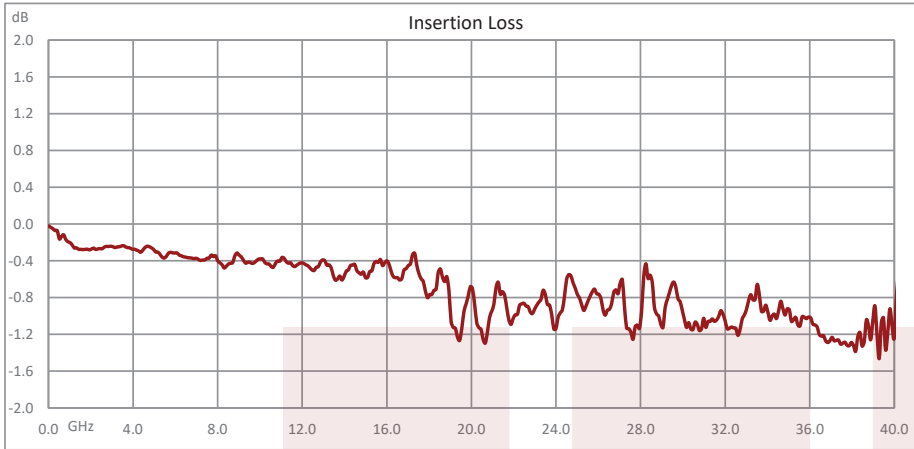
- General Purpose Wideband Bias Tee
- 12 KHz to 40 GHz Frequency Range
- Insertion Loss: 1.5 dB Typ
- Isolation: 50 dB typ
- VSWR: 1.7:1 typ
- 50 Ohms Input and Output Matched
- 2.92mm Female RF Input Connector
- 2.92mm Female RF Output Connector
- DC Connector: BNC Female
- Operational Temperature: +15°C to +30°C
- Rating: 150 mA max DC Current and +16V 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
sales@fairviewmicrowave.com

Typical Performance Data



12 KHz to 40 GHz, 2.92mm Broadband Bias Tee, Rated 150 mA and 16 Volts, DC BNC 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.

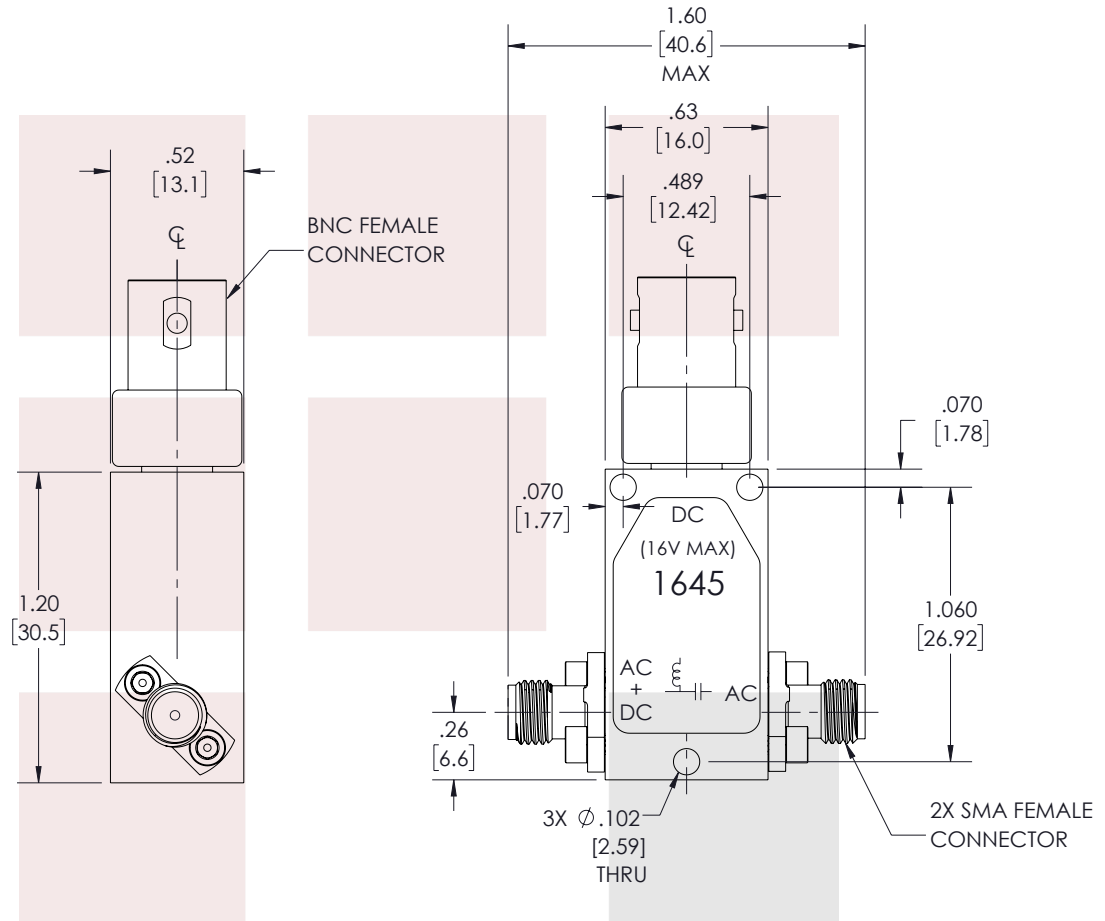
For additional information on this product, please click the following link: [12 KHz to 40 GHz, 2.92mm Broadband Bias Tee, Rated 150 mA and 16 Volts, DC BNC Connector FMBT1645](#)

URL: <https://www.fairviewmicrowave.com/bias-tee-0.012-mhz-40-ghz-150-ma-16-volts-dc-fmbt1645-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:		CABLE LENGTH (L) TOLERANCES:	
.X = ±.2 [5.08]	FRACTIONS ± 1/32	L ≤ 12 [305] = +1 [25] / -0	
.XX = ±.02 [51]		12 [305] < L ≤ 60 [1524] = +2 [51] / -0	
.XXX = ±.005 [13]	ANGLES ± 1°	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. FMBT1645	REV A
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