

10 MHz to 12 GHz SMA Broadband Bias Tee, Male Input, Rated to 2.5 Amps and 100 Volts, DC BNC Connector

The FMBT1629 is a Broadband Bias Tee that operates from 10 MHz to 12 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 0.8 dB insertion loss, 50 dB Isolation, and 1.3:1 VSWR. The Bias Tee is rated for 2.5 Amps and +100 Volts max DC voltage. Maximum RF input power handling is 5W. The compact package uses an SMA Male connector at the RF input and an SMA Female connector at the RF output. A Female BNC connector is used for the DC port. Operational Temperature is -55°C to +105°C.

Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	0.01		12	GHz
Impedance		50		Ohms
VSWR		1.3:1	1.5:1	
Insertion Loss		0.8	3	dB
RF to Bias Isolation		50		dB
DC Voltage			100	Vdc
DC Current			2.5	A
Input Power (CW)			5	Watts
Bias Path Resistance		0.04	0.05	Ohm
3dB Bandwidth	0.005		15	GHz

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: BNC Female

Features:

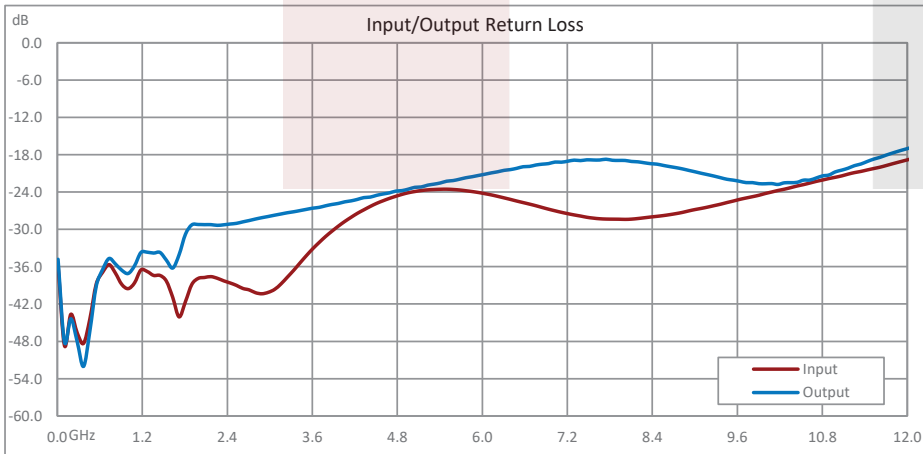
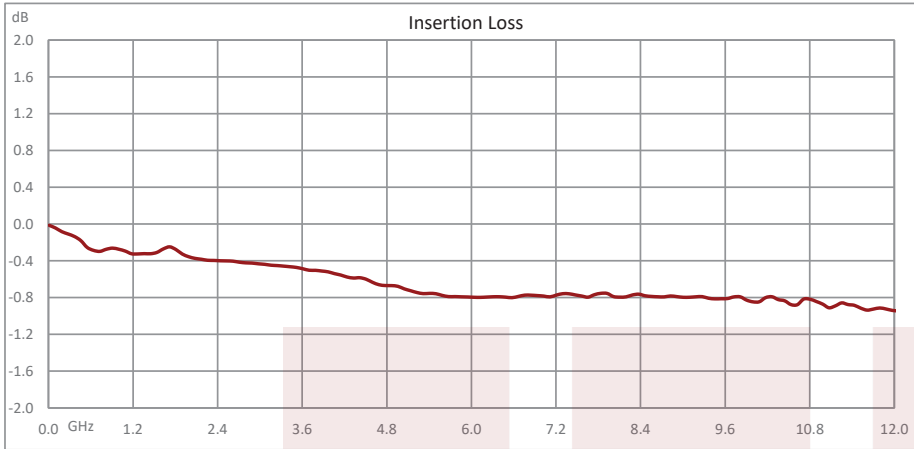
- General Purpose Broadband Bias Tee
- 10 MHz to 12 GHz Frequency Range
- Insertion Loss: 0.8 dB Typ
- Isolation: 50 dB typ
- VSWR: 1.3:1 typ
- RF Input Power Handling 5W max
- 50 Ohms Input and Output Matched
- SMA Male RF Input Connector
- SMA Female RF Output Connector
- DC Bias Connector: Female BNC
- Operational Temperature: -55°C to +105°C
- Rating: 2.5A max 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



10 MHz to 12 GHz SMA Broadband Bias Tee, Male Input, Rated to 2.5 Amps and 100 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.

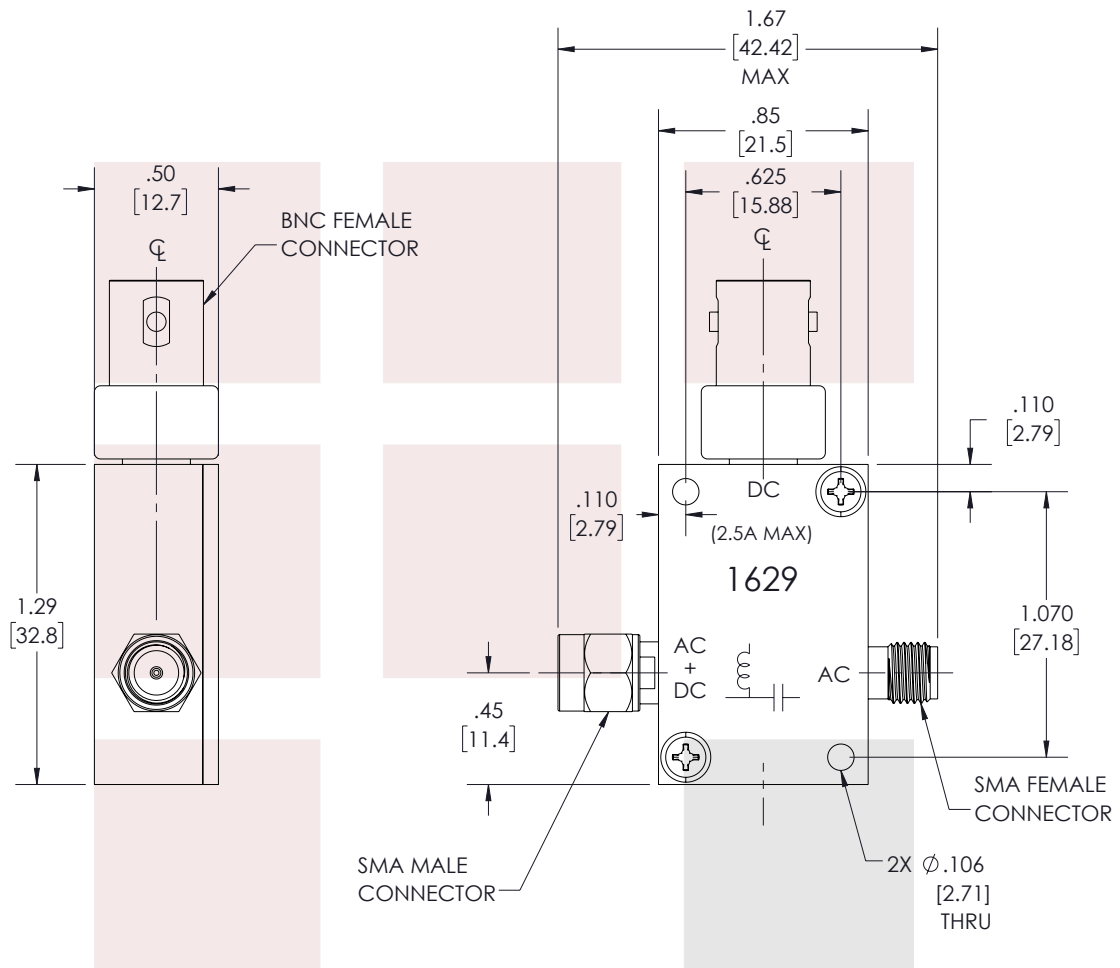
For additional information on this product, please click the following link: [10 MHz to 12 GHz SMA Broadband Bias Tee, Male Input, Rated to 2.5 Amps and 100 Volts, DC BNC Connector FMBT1629](#)

URL: <https://www.fairviewmicrowave.com/sma-bias-tee-10-mhz-12-ghz-2500-ma-100-volts-dc-fmbt1629-p.aspx>

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



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TITLE

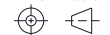
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UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES
DIMENSIONS IN [] ARE MILLIMETERS

TOLERANCES: CABLE LENGTH (L) TOLERANCES:

.X = ±.2 [5.08]	FRACTIONS	L ≤ 12 [305] = +1 [25] / -0
.XX = ±.02 [51]	± 1/32	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. FMBT1629	REV A
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