

10 MHz to 3 GHz, Type F 75 Ohm Bias Tee, Rated
2.5 Amps and 100 Volts, DC BNC Connector

Bias Tees Technical Data Sheet

PE1647

Features

- 75 Ohm Broadband Bias Tee
- 10 MHz to 3 GHz Frequency Range
- Insertion Loss: 1 dB Typ
- Isolation: 45 dB typ
- VSWR: 1.5:1 typ
- 75 Ohms Input and Output Matched
- Type F Male RF Input Connector
- Type F Female RF Output Connector
- DC Connector: BNC Female
- Operational Temperature: -55°C to +105°C
- Rating: 2.5 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

Description

The PE1647 is a 75 Ohm Broadband Bias Tee that operates from 10 MHz to 3 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 75 ohm input/output impedance and displays impressive typical performance that includes 1 dB insertion loss, 45 dB RF to Bias Port Isolation, and 1.5:1 VSWR. The Bias Tee is rated for 2.5 Amps and +100 Volts max DC voltage. The compact package uses a Type F Male connector at the RF input and a Type F Female connector at the RF output. A female BNC Connector is used for the DC Port. Operational Temperature is -55°C to +105°C.

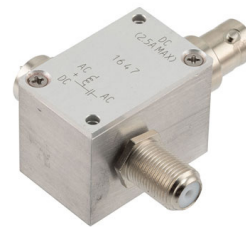
Configuration

RF Port Connector F Male
DC/RF Port Connector F Female
DC Port Connector BNC Female

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	0.01		3	GHz
Impedance		75		Ohms
VSWR		1.5:1	1.8:1	
Insertion Loss		1	3	dB
RF to Bias Isolation		45		dB
DC Voltage			100	Vdc
DC Current			2.5	A
Bias Path Resistance		0.04	0.05	Ohm
3dB Bandwidth	0.005		6	GHz

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [10 MHz to 3 GHz, Type F 75 Ohm Bias Tee, Rated 2.5 Amps and 100 Volts, DC BNC Connector PE1647](#)



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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

1 in [25.4 mm]

Weight

0.05 lbs [22.68 g]

Environmental Specifications

Temperature

Operating Range

-55 to +105 deg C

Storage Range

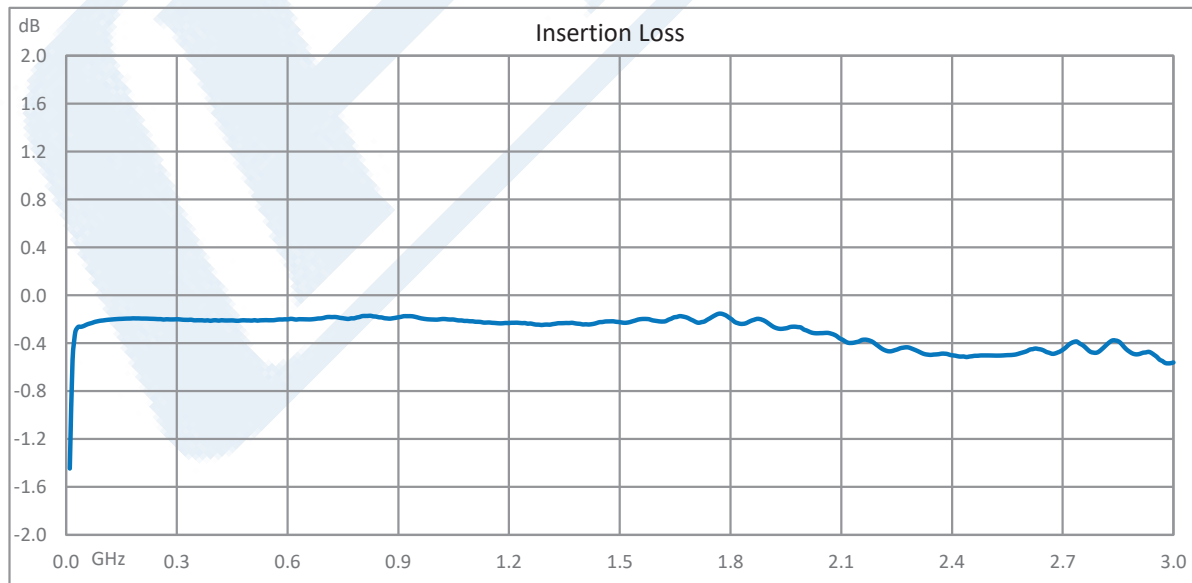
-60 to +90 deg C

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

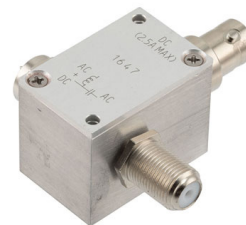
Plotted and Other Data

Notes:

Typical Performance Data



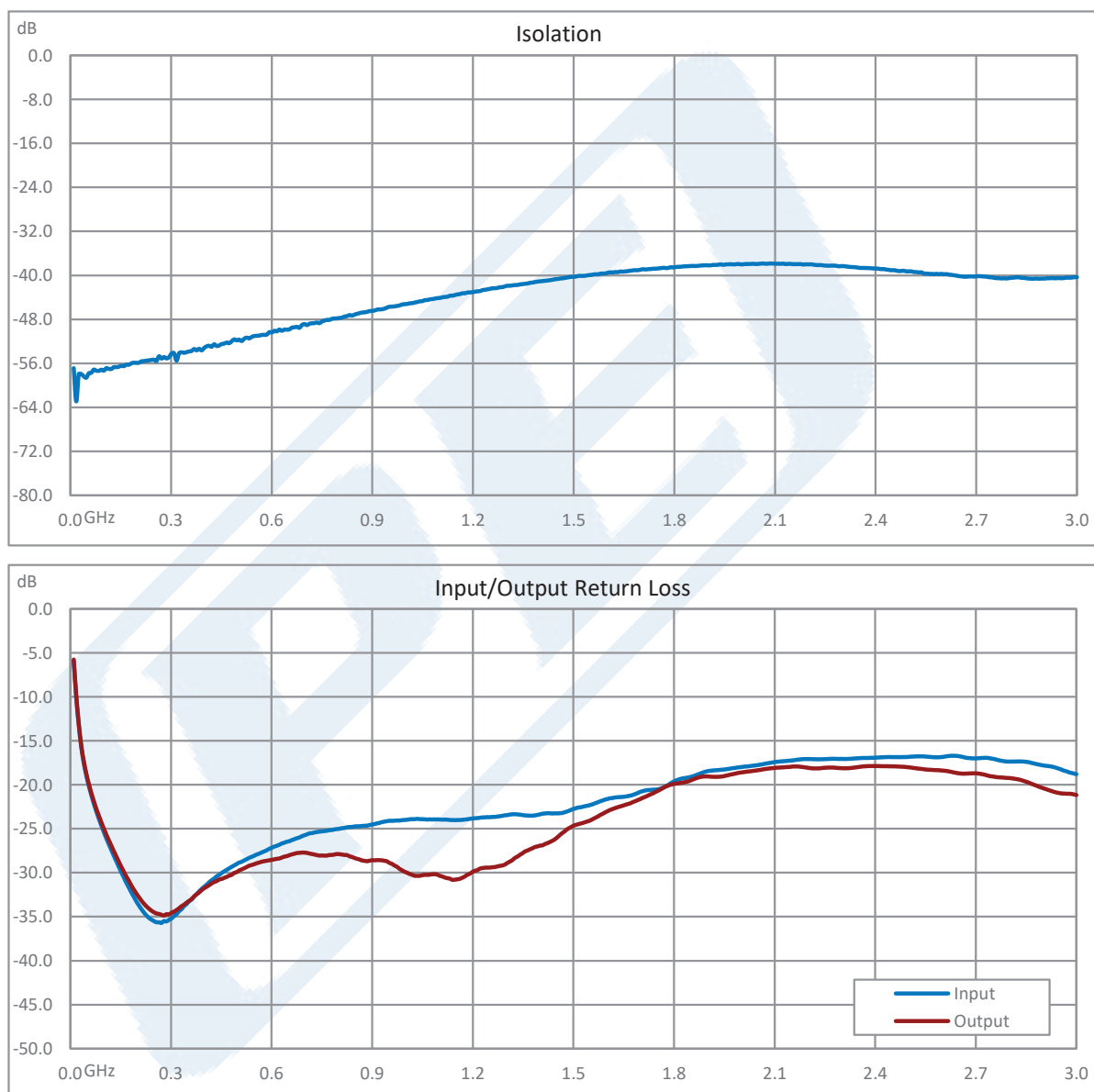
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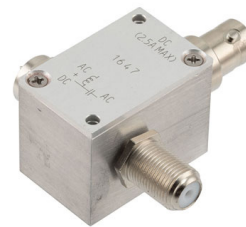
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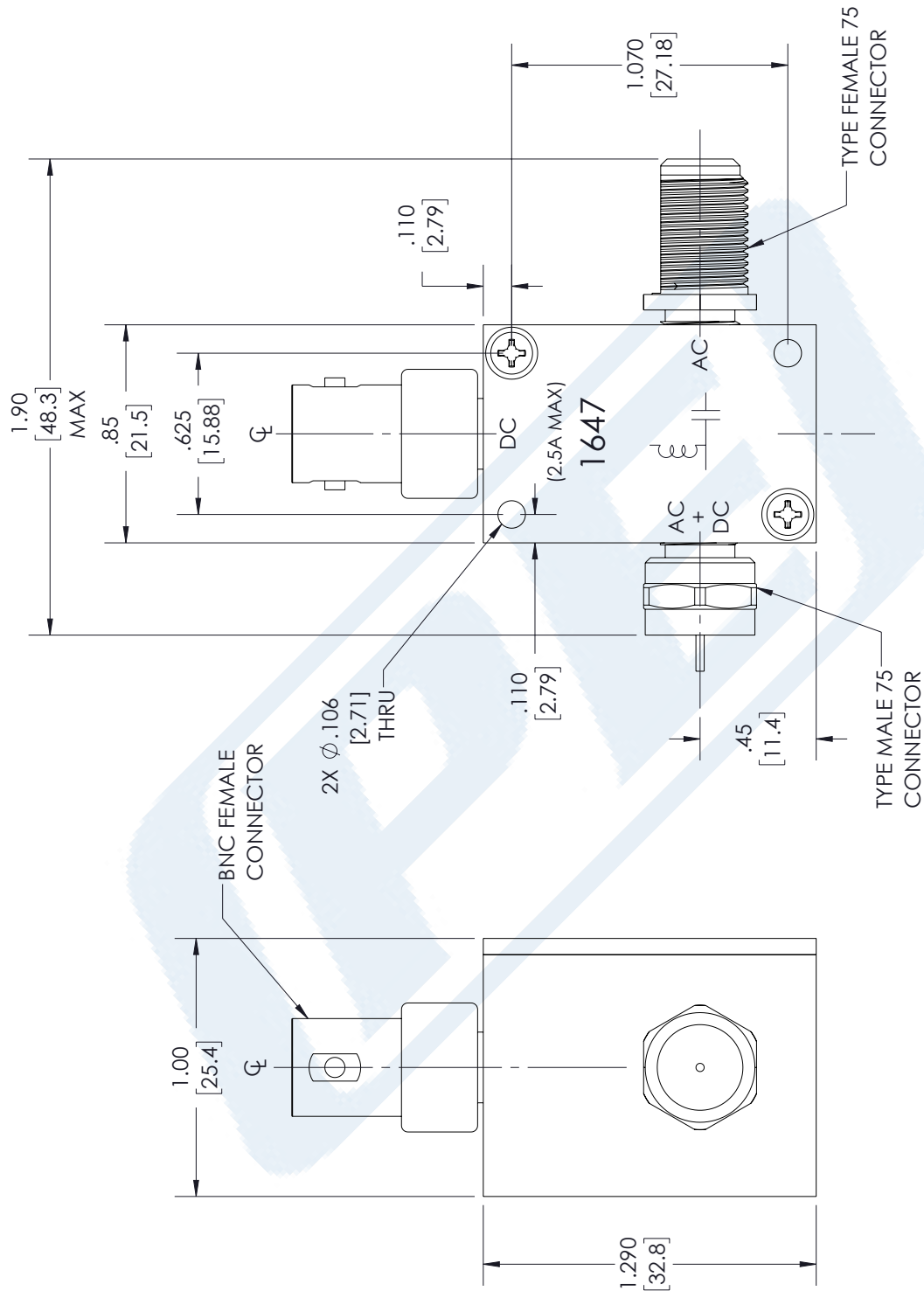
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [10 MHz to 3 GHz, Type F 75 Ohm Bias Tee, Rated 2.5 Amps and 100 Volts, DC BNC Connector PE1647](https://www.pasternack.com/f-bias-tee-10-mhz-3-ghz-2500-ma-100-volts-dc-pe1647-p.aspx)

URL: <https://www.pasternack.com/f-bias-tee-10-mhz-3-ghz-2500-ma-100-volts-dc-pe1647-p.aspx>

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



UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [] ARE MILLIMETERS	TOLERANCES:		THIRD-ANGLE PROJECTION	
	X = ± .2 [.008] .XX = ± .02 [.51] .XXX = ± .005 [.13]	FRACTIONS ± 1/32 ANGLES ± °		
	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% / -0		THE INFORMATION AND DESIGN IN THIS DOCUMENT IS THE PROPERTY OF PASTERNAK CORPORATION ALL RIGHTS RESERVED.	
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