



10 MHz to 3 GHz, Type N 75 Ohm Bias Tee,
Rated 2.5 Amps and 100 Volts, DC Pin

Bias Tees Technical Data Sheet

PE1649

Features

- 75 Ohm Broadband Bias Tee
- 10 MHz to 3 GHz Frequency Range
- Insertion Loss: 0.4 dB Typ
- Isolation: 45 dB typ
- VSWR: 1.5:1 typ
- 75 Ohms Input and Output Matched
- N Type Male RF Input Connector
- N Type Female RF Output Connector
- DC Connector: Solder Post Pin
- 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 PE1649 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 0.4 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 an N Type Male connector at the RF input and an N Type Female connector at the RF output. A Solder Post Pin is used for the DC Connector. Operational Temperature is -55°C to +105°C.

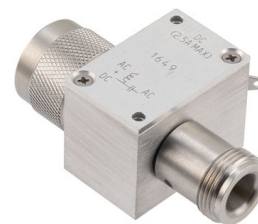
Configuration

RF Port Connector N Male
DC/RF Port Connector N Female
DC Port Connector DC Pin

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		0.4	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 N 75 Ohm Bias Tee, Rated 2.5 Amps and 100 Volts, DC Pin PE1649](#)



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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

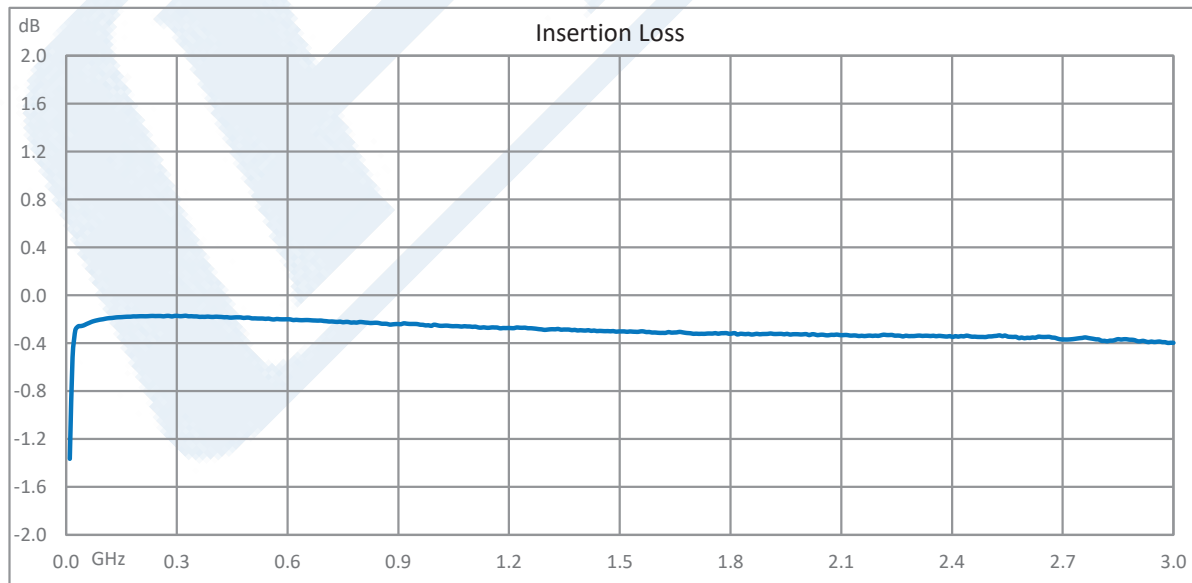
-60 to +90 deg C

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

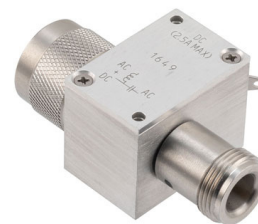
Plotted and Other Data

Notes:

Typical Performance Data



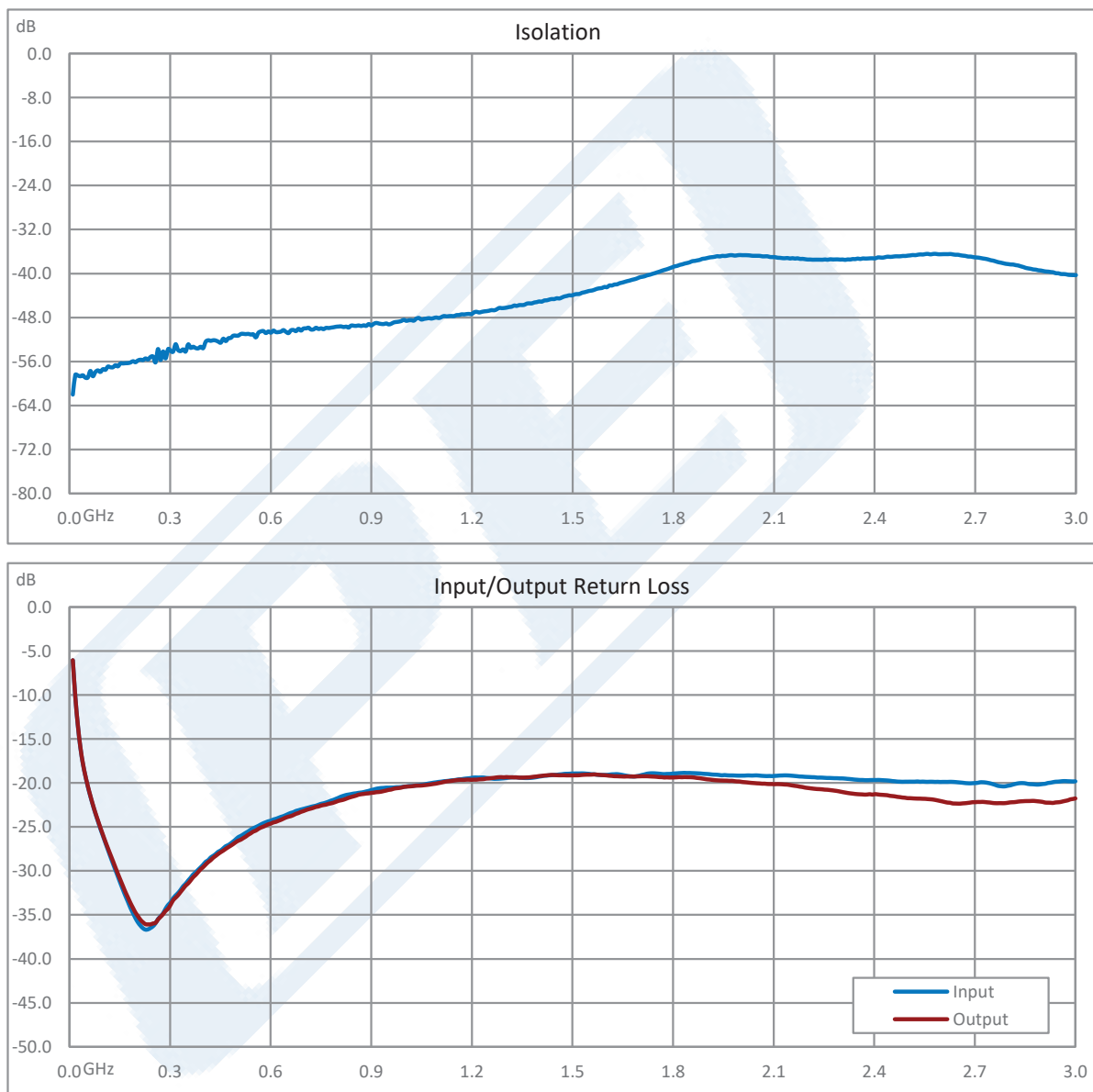
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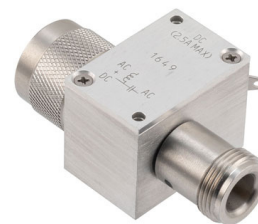
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10 MHz to 3 GHz, Type N 75 Ohm Bias Tee, Rated 2.5 Amps and 100 Volts, DC Pin from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

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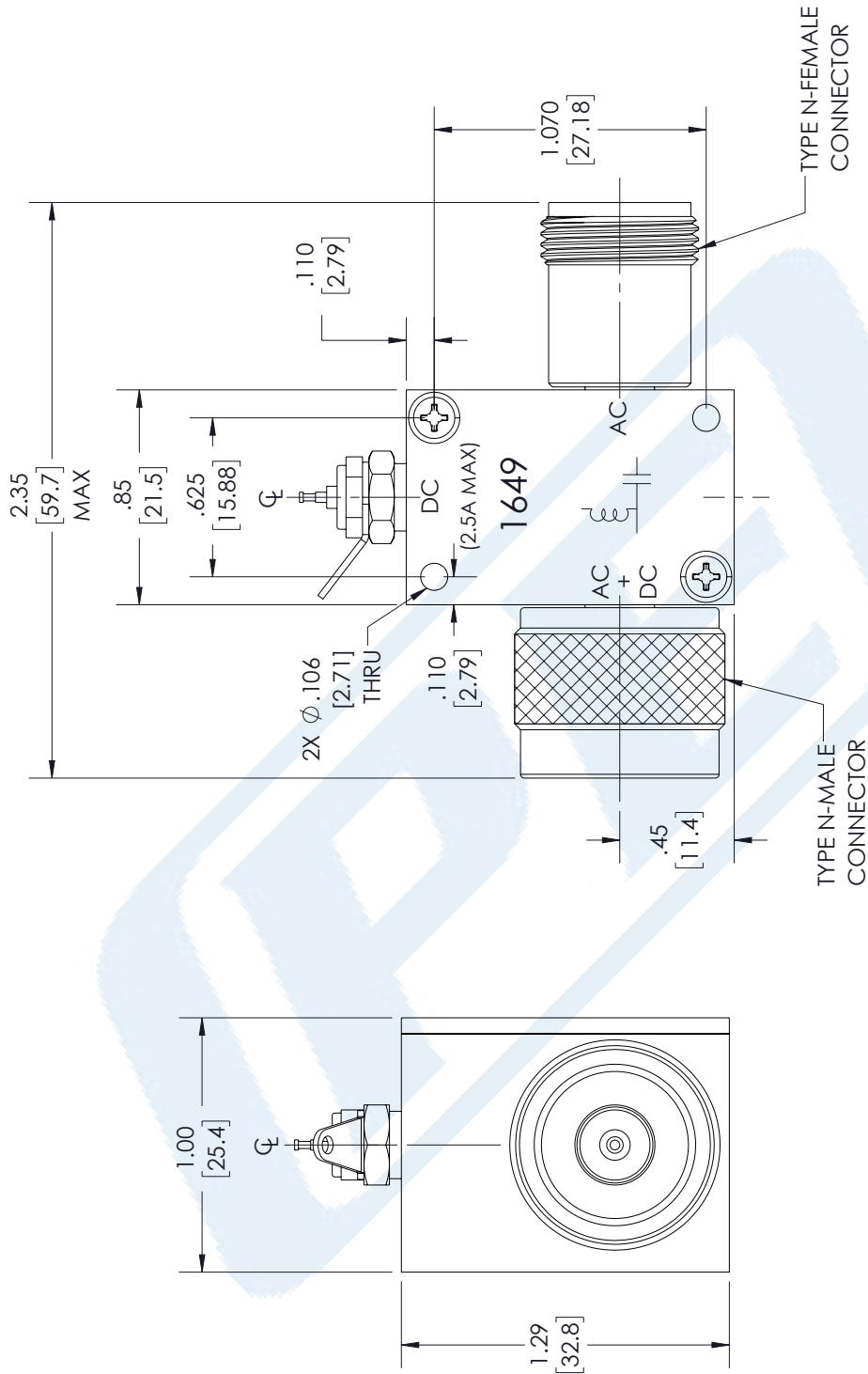
URL: <https://www.pasternack.com/n-bias-tee-10-mhz-3-ghz-2500-ma-100-volts-dc-pe1649-p.aspx>

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PE1649 CAD Drawing

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



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

TOLERANCES:

.X = $\pm .2$ [5.08] FRACTIONS
.XX = $\pm .02$ [.51] $\pm 1/32$
.XXX = $\pm .005$ [.13] ANGLES $\pm 1^\circ$

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 = $\pm 5\%$ L / -0

ALL DIMENSIONS SHOWN
ARE FOR REFERENCE ONLY.

THIRD-ANGLE PROJECTION



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SHEET 1 OF 1

SCALE N/A

REV A



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