



50 kHz to 50 GHz 2.4mm Bias Tee Rated to 150 mA and 25 Volts DC

## Bias Tees Technical Data Sheet

**PE1610**

### Features

- 50 kHz to 50 GHz Frequency Range
- Isolation 30 dB Min
- Insertion Loss < 3 dB
- 150 mA / 25 VDC Bias

### Applications

- Amplifier Biasing
- DC Return / Block
- Optical Communications
- Test and Measurement
- Communication Systems
- Wireless Systems
- Research and Development
- Antenna Measurements
- Data Transmission

### Description

The PE1610 is a high reliability Bias Tee that operates over a broadband frequency range from 50 kHz to 50 GHz. The 50 ohm design combines both quality and performance in a standard three-port network for general purpose applications. Impressive typical performance includes 1.5 dB insertion loss, 50 dB isolation (RF to Bias Port), 1.5:1 VSWR, and < 9 pico second rise time. DC bias voltage is +25 Vdc with 150 mA max current, and maximum input power is 5W CW. The compact Mil Grade package design features a 2.4 mm Male RF input connector and 2.4 mm Female output connector, with an SMA Female connector for the DC port.

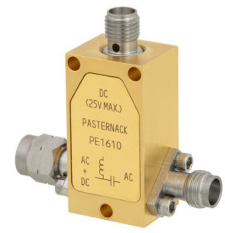
### Configuration

RF Port Connector	2.4mm Female
DC/RF Port Connector	2.4mm Male
DC Port Connector	SMA Female

### Electrical Specifications (@ +25°C)

Description	Minimum	Typical	Maximum	Units
Frequency Range	50KHz		50	GHz
Impedance		50		Ohms
VSWR			1.8:1	
Insertion Loss		1.5	4	dB
RF to Bias Isolation				
250 kHz to 26 GHz		50		dB
100 kHz to <250 kHz		30		dB
>26 GHz to 50 GHz		30		dB
DC Voltage			25	Vdc
DC Current			150	mA
Input Power (CW)			5	Watts
Rise Time		9		ps

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [50 kHz to 50 GHz 2.4mm Bias Tee Rated to 150 mA and 25 Volts DC PE1610](#)



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### Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	50KHz to 18	18 to 40	40 to 50			GHz
Insertion Loss, Max	1.5	3	4			dB
Insertion Loss, Typ	0.8	1.5	3			dB

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	0.0967 lbs [43.86 g]

Package Type	Connectorized
Housing Material and Plating	Brass, Gold

### Connectors

Description	RF Port Connector	RF/DC Port Connector	DC Port Connector
Type	2.4mm Female	2.4mm Male	SMA Female
Inner Conductor Material and Plating	Beryllium Copper, Gold	Beryllium Copper, Gold	Beryllium Copper, Gold
Body Material and Plating	Passivated Stainless Steel	Passivated Stainless Steel	Passivated Stainless Steel

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

### Plotted and Other Data

Notes:

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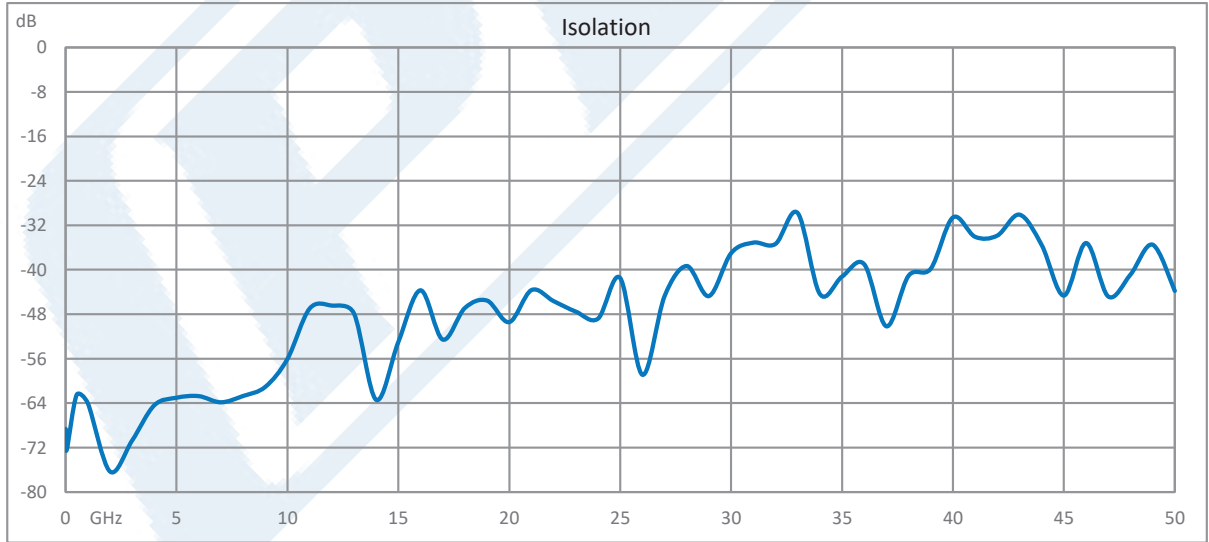
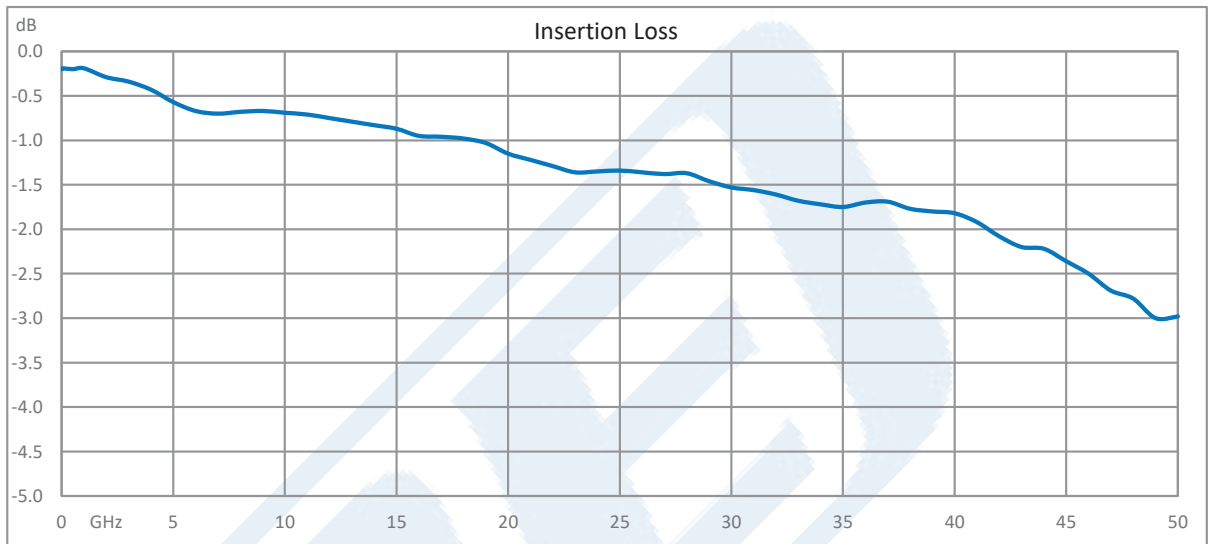


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**Typical Performance Data**



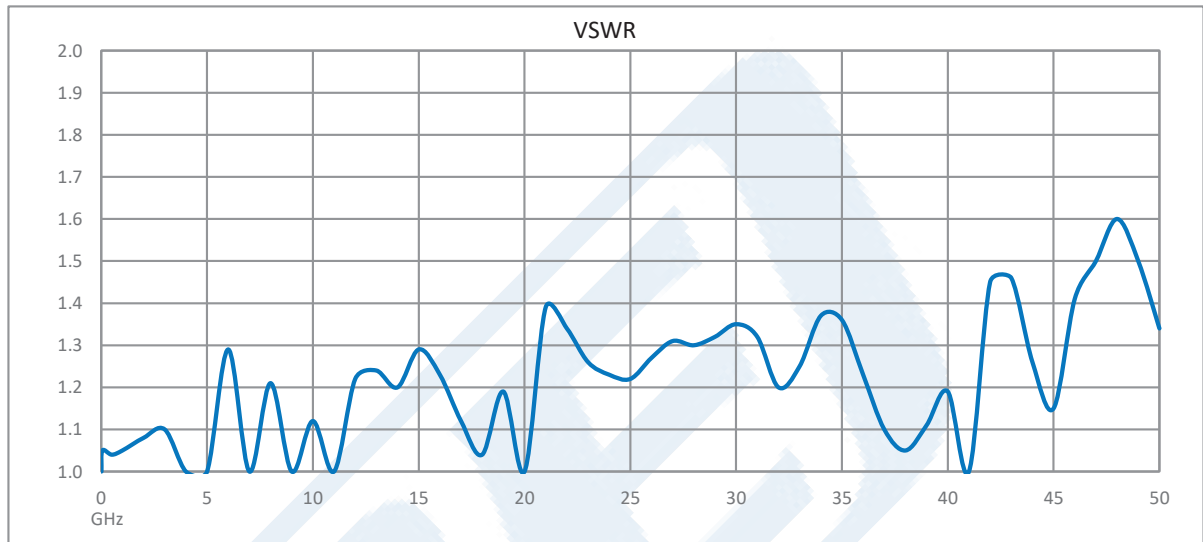
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50 kHz to 50 GHz 2.4mm Bias Tee Rated to 150 mA and 25 Volts DC from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

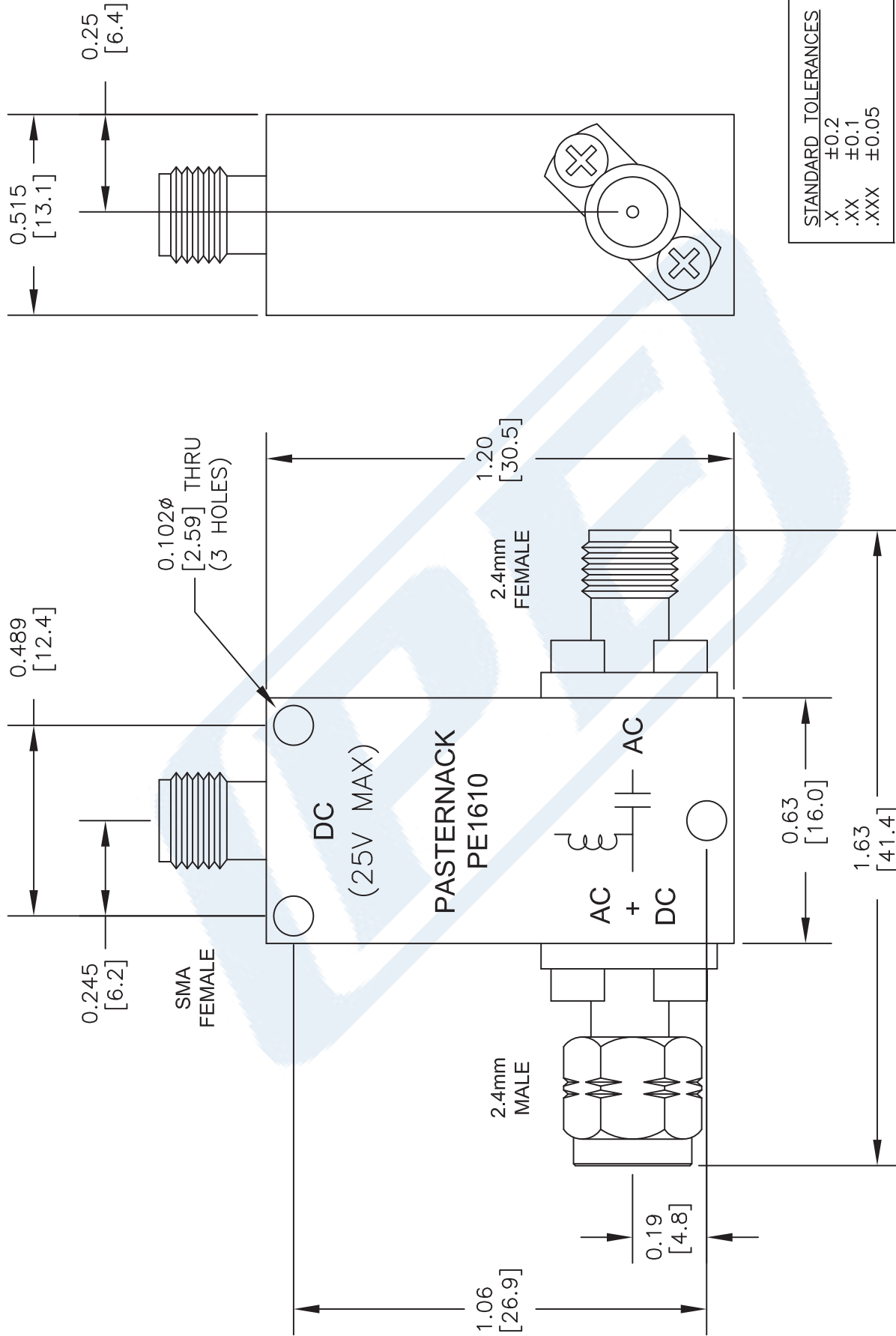
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [50 kHz to 50 GHz 2.4mm Bias Tee Rated to 150 mA and 25 Volts DC PE1610](https://www.pasternack.com/50-khz-50-ghz-2.4mm-bias-tee-150-ma-25-volts-dc-pe1610-p.aspx)

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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. Pasternack reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack does not assume any liability arising out of the use of any part or documentation.

# PE1610 CAD Drawing

50 kHz to 50 GHz 2.4mm Bias Tee Rated to 150 mA and 25 Volts DC



DWG TITLE

**PE1610**

NOTES:  
 1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.  
 2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.  
 3. DIMENSIONS ARE IN INCHES [mm].

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CAD FILE 110916

SCALE N/A

SIZE A

2233