



1 GHz to 5 GHz SMA Bias Tee Rated to 1000 mA And 50 Volts DC

## Bias Tees Technical Data Sheet

**PE1603**

### Features

- 1 GHz to 5 GHz Frequency Range
- Isolation 25 dB Typ
- Insertion Loss < 1.25 dB
- 1,000 mA / 50 VDC Bias

### Applications

- Amplifier Biasing
- DC Return / Block
- Transmitting Power With a Single
- Coax
- Test and Measurement
- Communication Systems
- Wireless Systems

### Description

Pasternack's PE1603 is an SMA bias tee (also known as bias T) that operates from 1 GHz to 5 GHz with a bias rating of 1,000 mA and 50 VDC. This bias tee is configured with SMA inputs on the RF ports and solder pin on the bias port. PE1603 SMA bias T offers good electrical performance featuring 1.25 dB max insertion loss and 25 dB typical isolation.

Bias tees are typically used to inject a DC signal into an RF path such as when biasing an amplifier or any other active device, supplying power to the connected output without disrupting the RF signal. They can also be used as DC returns to provide a ground return path for the input device or DC blocks to prevent direct current signals from flowing through the output device. Pasternack's bias tees are available in various connector configurations over different frequency bands to fit your needs, all of which ship the same day.

### Configuration

Design	Broadband
RF Port Connector	SMA Female
RF Port Connector Specification	MIL-STD-348
DC/RF Port Connector	SMA Female
DC Port Connector	Solder Pin
Sense Input Port Connector Specification	MIL-STD-348

### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	1		5	GHz
Impedance		50		Ohms
VSWR			1.5:1	
Insertion Loss			1.25	dB
RF to Bias Isolation		25		dB
DC Voltage			50	Vdc
DC Current			1	A
Input Power (CW)			5	Watts

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [1 GHz to 5 GHz SMA Bias Tee Rated to 1000 mA And 50 Volts DC PE1603](#)



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Electrical Specification Notes:  
Values at +25°C, sea level.

### Mechanical Specifications

#### Size

Length	2 in [50.8 mm]
Width	0.55 in [13.97 mm]
Height	1.525 in [38.74 mm]
Weight	0.0565 lbs [25.63 g]
Package Type	Connectorized
Housing Material and Plating	Aluminum

### Connectors

Description	RF Port Connector	Sense Port Connector	DC Input Port Connector
Type	SMA Female	SMA Female	Solder Pin
Inner Conductor Material and Plating	Beryllium Copper, Gold	Beryllium Copper, Gold	
Body Material and Plating	Passivated Stainless Steel	Passivated Stainless Steel	

### Environmental Specifications

#### Temperature

Operating Range	-55 to +105 deg C
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**Compliance Certifications** (see [product page](#) for current document)

### Plotted and Other Data

Notes:

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1 GHz to 5 GHz SMA Bias Tee Rated to 1000 mA And 50 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.

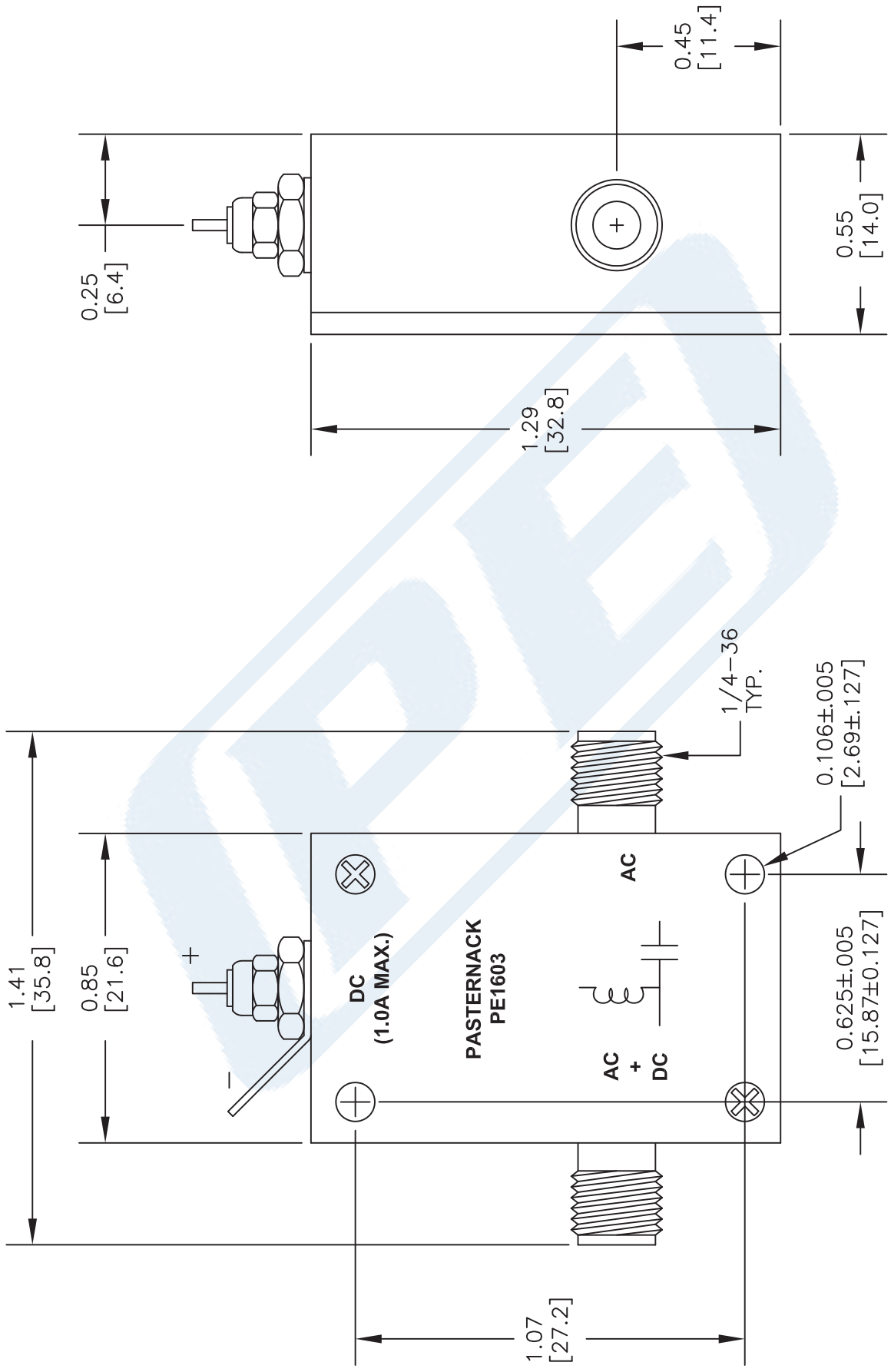
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [1 GHz to 5 GHz SMA Bias Tee Rated to 1000 mA And 50 Volts DC PE1603](https://www.pasternack.com/1000-mhz-5-ghz-sma-bias-tee-1000-ma-50-volts-dc-pe1603-p.aspx)

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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.

# PE1603 CAD Drawing

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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].

DWG TITLE		FSCM NO. 53919	
PE1603		CAD FILE	111615
SCALE	N/A	SIZE	A
			150

**PE PASTERNAK**  
 THE ENGINEER'S RF SOURCE

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