



50 Ohm SMA Frequency Doubler With Input From  
1.5 GHz to 5 GHz And Output From 3 GHz to 10 GHz  
With 8.5 dB Conversion Loss

## Frequency Multipliers Technical Data Sheet

PE8600

### Features

- x2 Frequency Multiplier
- Wide Frequency Band
- Low Conversion Loss

### Applications

- Electronic Warfare
- Point-to-Point Radio
- Point-to-Multipoint Radio
- VSAT Radios
- Space Systems
- Test Instrumentation
- Telecommunications

### Description

Pasternack's PE8600 is a frequency multiplier with a multiplication factor of 2, also known as a frequency doubler. This frequency doubler covers a wide output frequency range of 3 GHz to 10 GHz. Typical performance of this frequency multiplier includes 8.5 dB conversion loss. The PE8600 frequency multiplier also provides 25 dB minimum fundamental isolation.

### Electrical Specifications (TA= 25°C)

Description	Minimum	Typical	Maximum	Units
Input Frequency Range	1.5		5	GHz
Output Frequency Range	3		10	GHz
Impedance		50		Ohms
Input Power (CW)	+10		+13	dBm
Conversion Loss		8.5	11	dB
Fundamental Isolation	25			dB

Electrical Specification Notes:  
Values at 25°C, sea level.  
Fundamental isolation referenced to input signal.

### Mechanical Specifications

<b>Size</b>	
Length	1.55 in [39.37 mm]
Width	0.31 in [7.87 mm]
Height	0.59 in [14.99 mm]
Weight	0.027 lbs [12.25 g]
Body Material and Plating	Passivated Stainless Steel
Package Type	Connectorized
Input Connector	SMA Female
Output Connector	SMA Female

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [50 Ohm SMA Frequency Doubler With Input From 1.5 GHz to 5 GHz And Output From 3 GHz to 10 GHz With 8.5 dB Conversion Loss PE8600](#)



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### Environmental Specifications

#### Temperature

Operating Range

-55 to +125 deg C

Storage Range

-65 to +150 deg C

### Compliance Certifications (visit [www.Pasternack.com](http://www.Pasternack.com) for current document)

RoHS Compliant

REACH Compliant

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### Plotted and Other Data

Notes:

50 Ohm SMA Frequency Doubler With Input From 1.5 GHz to 5 GHz And Output From 3 GHz to 10 GHz With 8.5 dB Conversion Loss from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

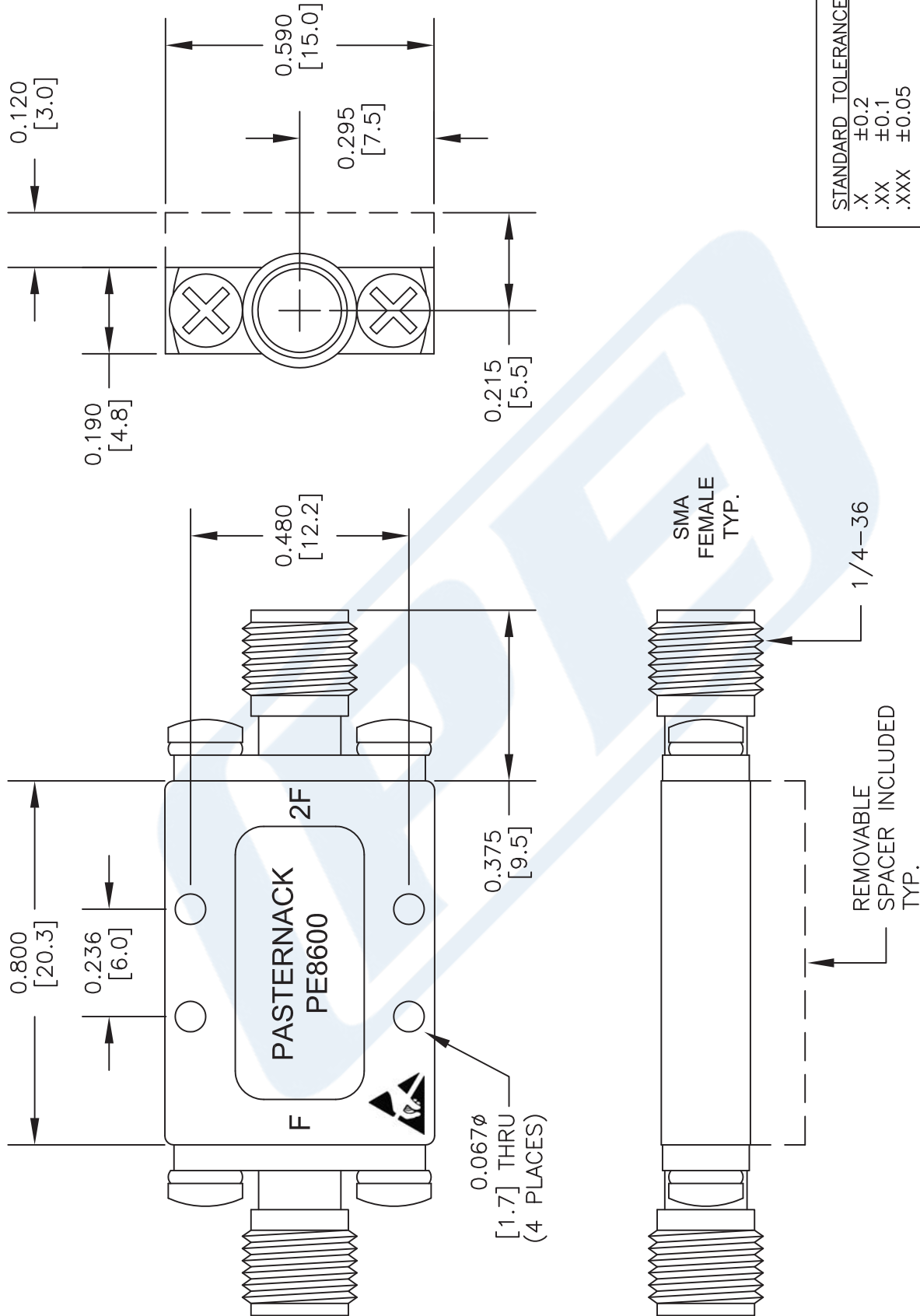
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [50 Ohm SMA Frequency Doubler With Input From 1.5 GHz to 5 GHz And Output From 3 GHz to 10 GHz With 8.5 dB Conversion Loss PE8600](https://www.pasternack.com/50-ohm-sma-doubler-input-1500-5000-output-3000-10000-8.5db-loss-pe8600-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.

# PE8600 CAD Drawing

50 Ohm SMA Frequency Doubler With Input From 1.5 GHz to 5 GHz  
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STANDARD TOLERANCES	
.X	±0.2
.XX	±0.1
.XXX	±0.05

\*STANDARD TOLERANCES APPLY  
ONLY TO DIMENSIONS IN INCHES

## 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

**PE8600**

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

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FSCM NO. 53919

CAD FILE 071216

SCALE N/A

SIZE A

2233