



Directional 10 dB SMA Coupler to 2.2 GHz Rated to 50 Watts

Couplers Technical Data Sheet

PE2CP025-10

Features

- Directional Coupler
- 0.8 to 2.2 GHz Frequency Range
- Coupling 10±1 dB
- Directivity > 18 dB
- VSWR < 1.25:1
- Max Power 50 Watts (CW)

Applications

- Test and Measurement
- Military Communications
- Commercial Communications
- Wireless Communications
- SATCOM

Description

Directional couplers are indispensable components for isolating, separating and combining signals. For example, they provide a simple way of sampling microwave signals. They also can make accurate attenuator measurements since reflections are eliminated. The PE2CP025-10 is a 10 dB directional coupler that operates from 0.8 to 2.2 GHz with 18 dB directivity minimum and 1.25:1 VSWR maximum. The package interface uses SMA female connectors, and is also REACH and RoHS compliant.

The PE2CP025-10 is part of Pasternack's family of directional/dual-directional couplers that offer coupling ratios up to 50 dB with excellent performance featuring high directivity, low insertion loss and VSWR. They are available in both narrow and broad bandwidths and can be used in a wide variety of applications including signal sampling, VSWR measurements, power combining and distribution.

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	0.8		2.2	GHz
Impedance		50		Ohms
Coupling	8.5	10 ±1	11.5	dB
Frequency Sensitivity		±0.3	±0.5	dB
Insertion Loss		0.6	1	dB
Directivity	20	25		dB
Main Line VSWR		1.15:1	1.3:1	
Secondary Line VSWR		1.15:1	1.3:1	
Input Power (CW)			50	Watts
Input Power (Peak)			1	kWatts

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

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Directional 10 dB SMA Coupler to 2.2 GHz Rated to 50 Watts PE2CP025-10](#)



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Mechanical Specifications

Size

Length	4.53 in [115.06 mm]
Width/Dia.	0.98 in [24.89 mm]
Height	0.39 in [9.91 mm]

Housing Material and Plating	Aluminum
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Configuration

Package Type	Connectorized
Input Connector	SMA Female
Output Connector	SMA Female
Coupled Connectors	SMA Female

Environmental Specifications

Temperature

Operating Range	-45 to +85 deg C
Storage Range	-55 to +125 deg C

Humidity	100% RH at 35°C, 95% RH at 40°C
Shock	20G for 11 msec half sine wave, 3 axis both directions
Vibration	25g RMS (15 degrees 2KHz) endurance, 1 hour per axis
Altitude	30,000 ft (Epoxy Sealed Controlled environment)

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

Plotted and Other Data

Notes:

Directional 10 dB SMA Coupler to 2.2 GHz Rated to 50 Watts 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.

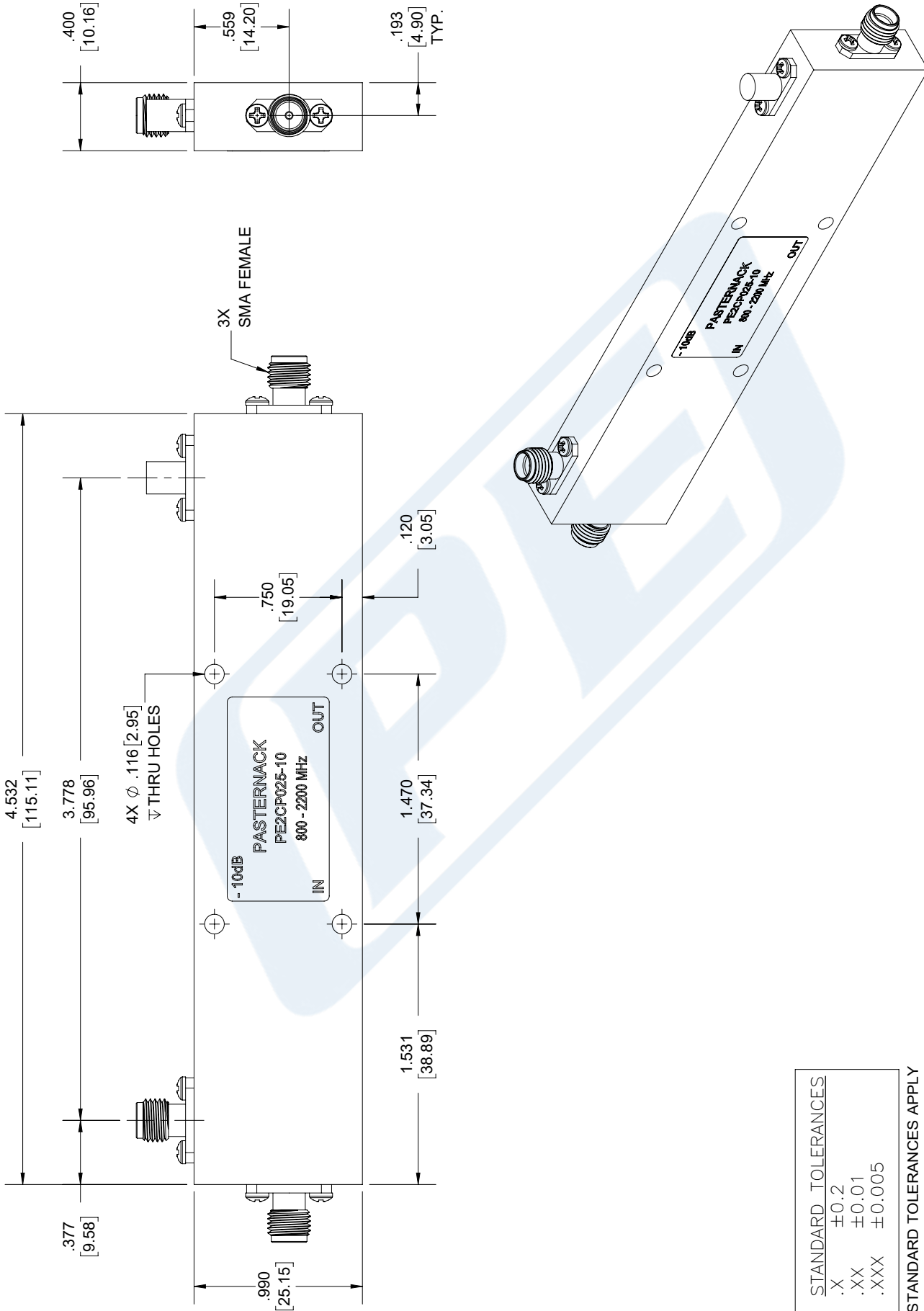
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URL: <https://www.pasternack.com/directional-10-db-sma-coupler-2.2-ghz-pe2cp025-10-p.aspx>

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.

PE2CP025-10 CAD Drawing

Directional 10 dB SMA Coupler to 2.2 GHz Rated to 50 Watts



STANDARD TOLERANCES	
.X	± 0.2
.XX	± 0.01
.XXX	± 0.005

*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

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DWG TITLE	PE2CP025-10
CAGE CODE	53919

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].
CAD FILE	11/12/18
SCALE	N/A
SIZE	A
	7316