



## Directional 20 dB SMA Coupler To 3 GHz Rated to 50 Watts

### Couplers Technical Data Sheet

PE2242A-20

#### Features

- Directional Coupler
- 0.5 to 3 GHz Frequency Range
- Coupling  $20 \pm 1.5$  dB
- Directivity > 18 dB
- VSWR < 1.3:1
- 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 PE2242A-20 is a 20 dB directional coupler that operates from 0.5 to 3 GHz and can handle up to 50 Watts (CW) with 18 dB directivity minimum and 1.3:1 VSWR maximum. The package interface uses SMA female connectors, and is also REACH and RoHS compliant.

The PE2242A-20 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	0.5		3	GHz
Impedance		50		Ohms
Coupling		$20 \pm 1.5$		dB
Insertion Loss			0.5	dB
Directivity	18			dB
Main Line VSWR			1.3:1	
Secondary Line VSWR			1.3:1	
Input Power (CW)			50	Watts

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 20 dB SMA Coupler To 3 GHz Rated to 50 Watts PE2242A-20](#)



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#### Mechanical Specifications

##### Size

Length	4.72 in [119.89 mm]
Width/Dia.	0.4 in [10.16 mm]
Height	1.18 in [29.97 mm]

##### Finish

Blue

##### Housing Material and Plating

Aluminum

#### Configuration

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

#### Environmental Specifications

##### Temperature

Operating Range	-30 to +85 deg C
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#### Compliance Certifications (see [product page](#) for current document)

#### Plotted and Other Data

##### Notes:

Directional 20 dB SMA Coupler To 3 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.

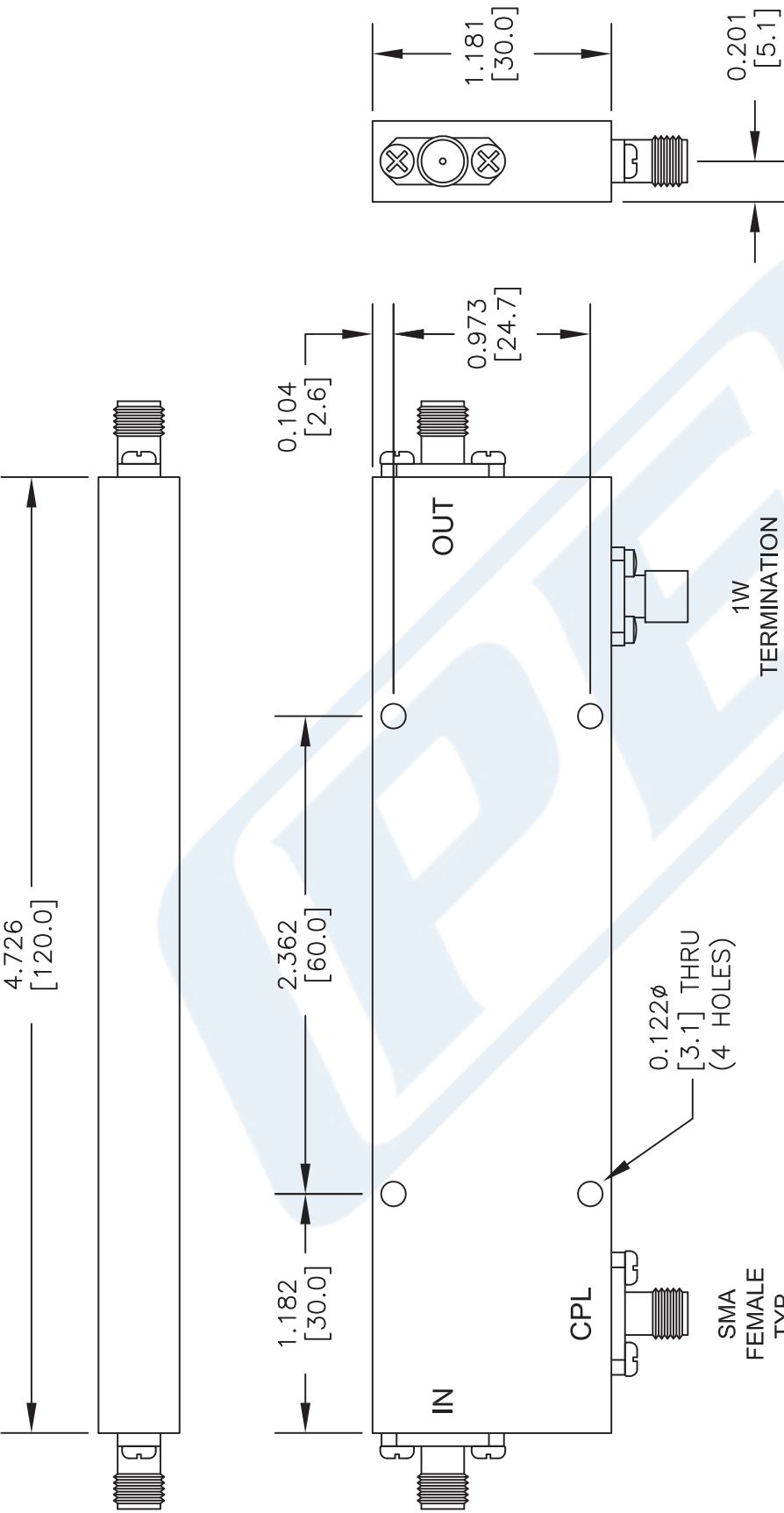
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Directional 20 dB SMA Coupler To 3 GHz Rated to 50 Watts PE2242A-20](#)

URL: <https://www.pasternack.com/directional-20-db-sma-coupler-3-ghz-pe2242a-20-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.

PE2242A-20 CAD Drawing

Directional 20 dB SMA Coupler To 3 GHz Rated to 50 Watts



LABEL  
PE2242A-20

STANDARD TOLERANCES	
.X	±0.2
.XX	±0.1
.XXX	±0.05

\*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES



THE ENGINEER'S RF SOURCE

Pasternack Enterprises, Inc.

P.O. Box 16759 | Irvine | CA | 92623

Phone: (949) 261-1920 | Fax: (949) 261-7451

Website: [www.pasternack.com](http://www.pasternack.com) | E-Mail: [sales@pasternack.com](mailto:sales@pasternack.com)

DWG TITLE

PE2242A-20

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 041317

SCALE N/A

SIZE A

2233