



Directional 20 dB SMA Coupler From 500 MHz to 18 GHz Rated to 30 Watts

Couplers Technical Data Sheet

PE2243-20

Features

- Directional Coupler
- 0.5 to 18 GHz Frequency Range
- Coupling 20 ± 1.25 dB
- Directivity 10 to 20 dB Typ.
- VSWR 1.22:1 to 1.67:1 Typ.
- Max Power 30 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 PE2243-20 is a 20 dB directional coupler that operates from 0.5 to 18 GHz and can handle up to 30 Watts (CW) with a typical directivity between 10 to 20 dB and VSWR between 1.22:1 to 1.67:1. The package interface uses SMA female connectors, and is also REACH and RoHS compliant.

The PE2243-20 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		18	GHz
Impedance		50		Ohms
Coupling		20 ± 1.25		dB
Frequency Sensitivity		± 1		dB
Input Power (CW)			30	Watts
Input Power (Peak)			3	KWatts

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 From 500 MHz to 18 GHz Rated to 30 Watts PE2243-20](#)



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Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	0.5 to 4	4 to 8	8 to 12.4	12.4 to 18		GHz
Insertion Loss, Typ	0.5	0.7	1.13	1.6		dB
Main Line VSWR, Typ	1.22:1	1.22:1	1.29:1	1.38:1		
Secondary Line VSWR, Typ	1.22:1	1.29:1	1.43:1	1.67:1		
Directivity, Typ	20	17	15	10		dB

Electrical Specification Notes:

Values at 25°C, sea level.

Coupling tolerance includes frequency sensitivity.

Mechanical Specifications

Size

Length	4.4 in [111.76 mm]
Width/Dia.	0.38 in [9.65 mm]
Height	1.11 in [28.19 mm]
Weight	0.12 lbs [54.43 g]

Configuration

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

Compliance Certifications (visit www.Pasternack.com for current document)

RoHS Compliant	
REACH Compliant	12/17/2015

Plotted and Other Data

Notes:

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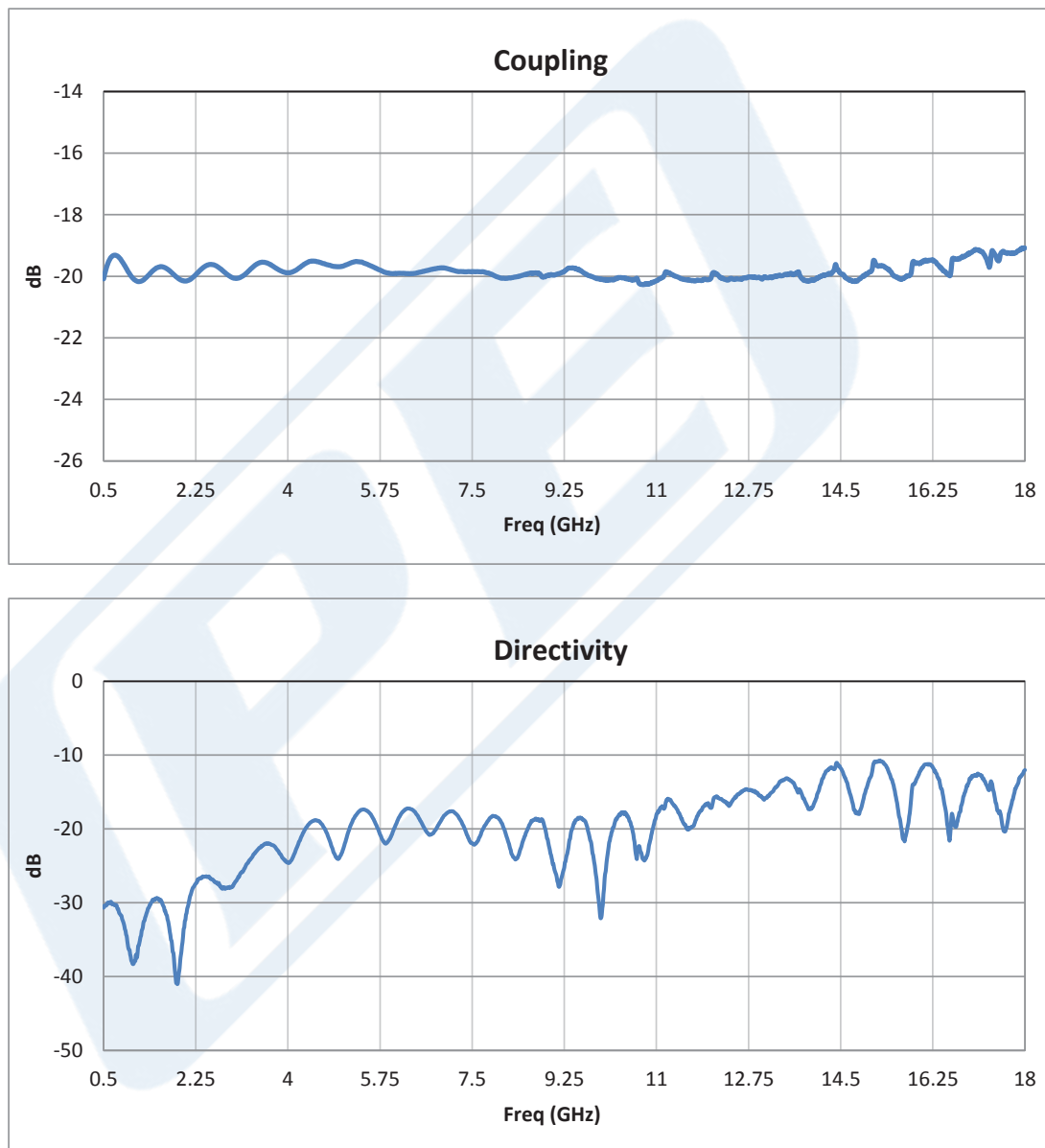


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Typical Performance Data



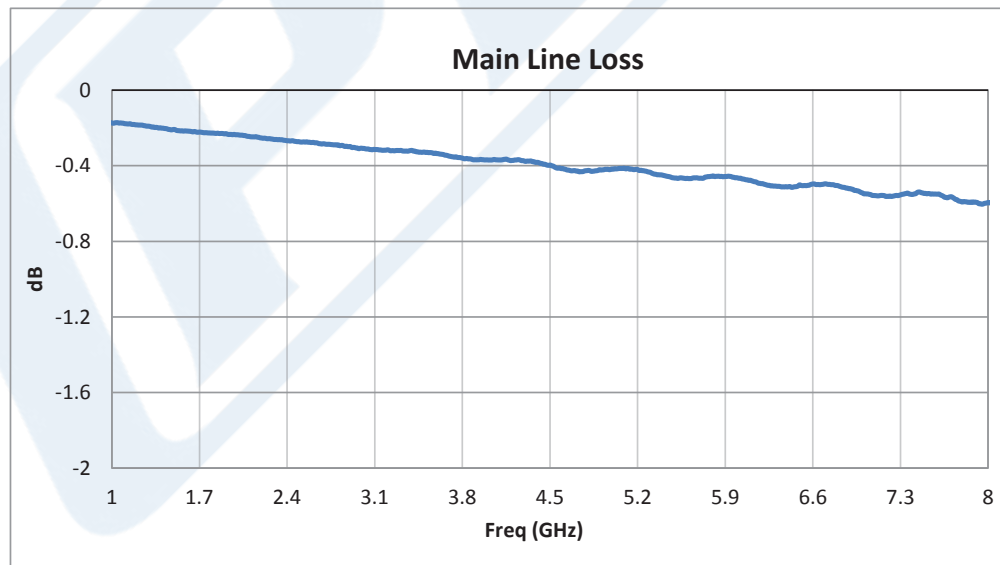
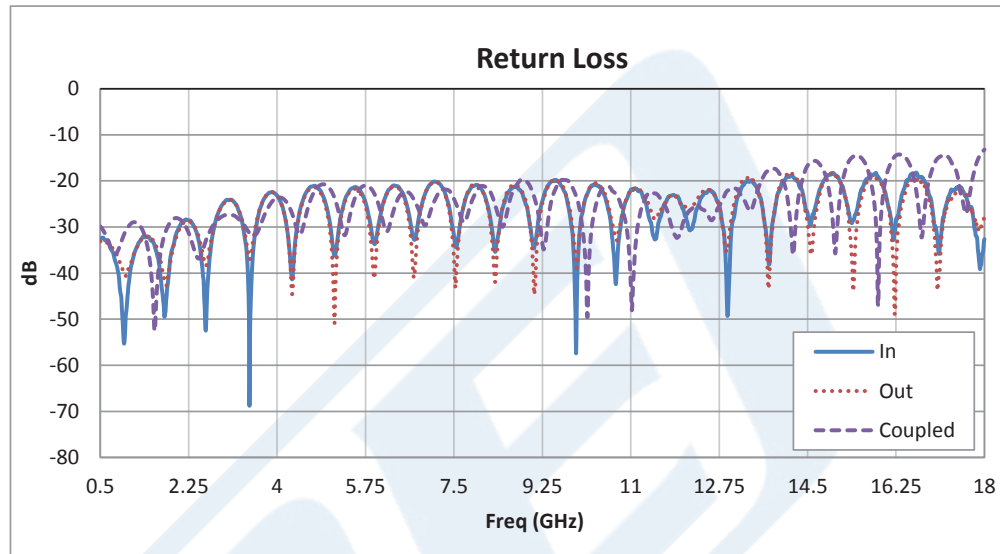
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Directional 20 dB SMA Coupler From 500 MHz to 18 GHz Rated to 30 Watts from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

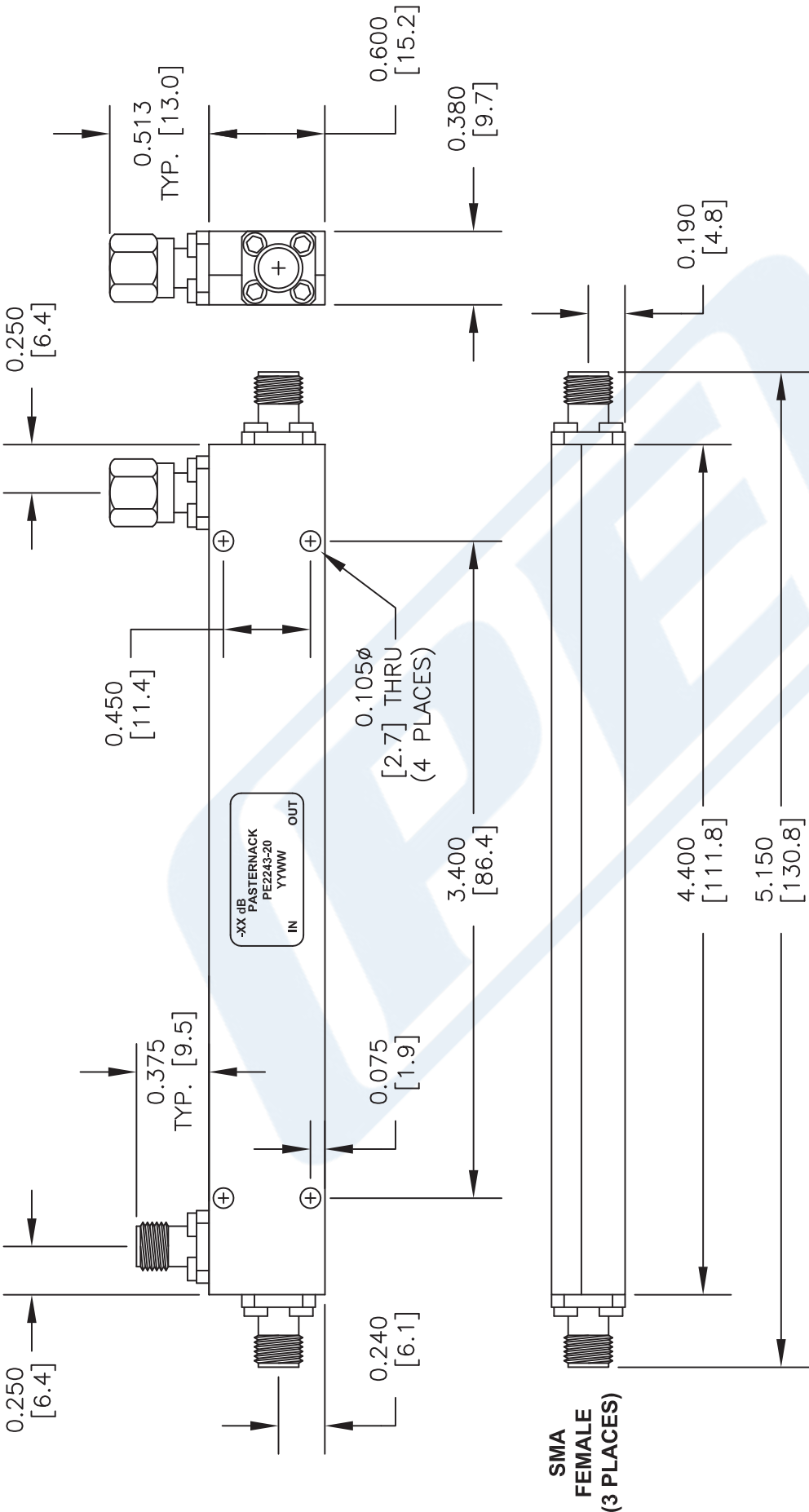
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Directional 20 dB SMA Coupler From 500 MHz to 18 GHz Rated to 30 Watts PE2243-20](http://www.pasternack.com/directional-20-db-sma-coupler-500-mhz-18-ghz-30-watts-pe2243-20-p.aspx)

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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.

PE2243-20 CAD Drawing

Directional 20 dB SMA Coupler From 500 MHz to 18 GHz Rated to 30 Watts



STANDARD TOLERANCES

.X ± 0.1
.XX ± 0.01
.XXX ± 0.005

*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
PE2243-20

FSCM NO. 53919

CAD FILE 040116

SCALE N/A

SIZE A

3045

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