



Directional 6 dB SMA Coupler From 2 GHz to 18 GHz Rated to 4 Watts

Couplers Technical Data Sheet

PE2215-6

Features

- Directional Coupler
- 2 to 18 GHz Frequency Range
- Coupling 6 ± 1 dB
- Directivity > 12 dB
- VSWR < 1.5:1
- Max Power 4 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 PE2215-6 is a 6 dB directional coupler that operates from 2 to 18 GHz and can handle up to 4 Watts (CW) with 12 dB directivity minimum and 1.5:1 VSWR maximum. The package interface uses SMA female connectors, and is also REACH and RoHS compliant.

The PE2215-6 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	2		18	GHz
Impedance		50		Ohms
Coupling		6 ± 1		dB
Frequency Sensitivity			± 0.5	dB
Insertion Loss			1	dB
Directivity	12			dB
Main Line VSWR			1.5:1	
Secondary Line VSWR			1.5:1	
Input Power (CW)			4	Watts

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Directional 6 dB SMA Coupler From 2 GHz to 18 GHz Rated to 4 Watts PE2215-6](#)



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Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	2 to 12	12 to 18				GHz
Directivity, Min	15	12				dB

Electrical Specification Notes:

Values at 25°C, sea level.

Coupling tolerance includes frequency sensitivity.

Main line loss is the difference in power level between input and output.

Insertion loss excludes coupled power from main line loss.

Mechanical Specifications

Size

Length	2.23 in [56.64 mm]
Width/Dia.	0.4 in [10.16 mm]
Height	1.35 in [34.29 mm]
Weight	0.087 lbs [39.46 g]

Configuration

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

Environmental Specifications

Temperature

Operating Range	-55 to +100 deg C
Storage Range	-55 to +100 deg C

Humidity	MIL-STD-202 Method 106
Shock	MIL-STD-202 Method 213/I
Vibration	MIL-STD-202 Method 204/D
Altitude	MIL-STD-202 Method 105/E
Thermal Shock	MIL-STD-202 Method 107/B

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

Plotted and Other Data

Notes:

- Values at 25°C, sea level.

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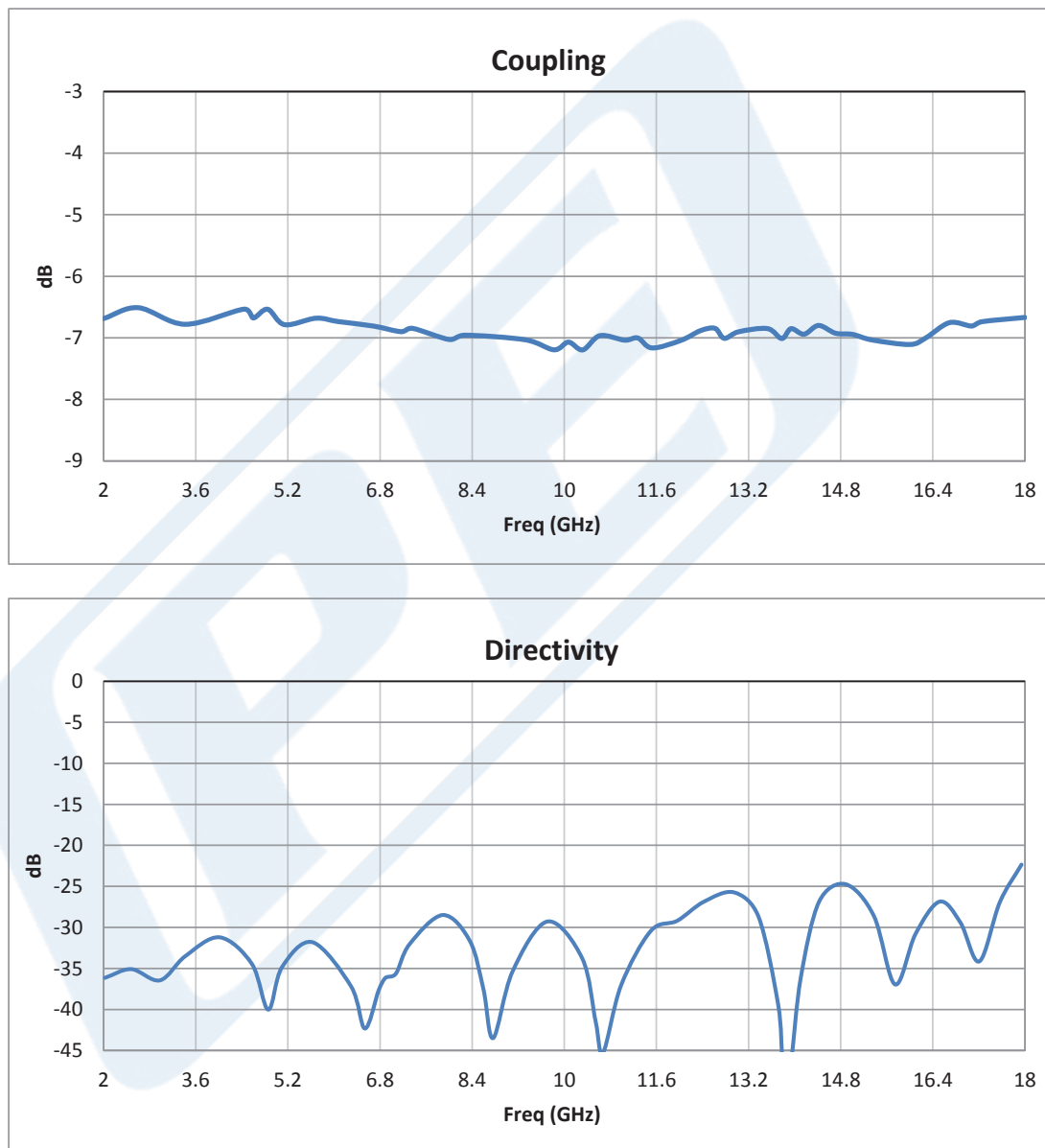


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Typical Performance Data



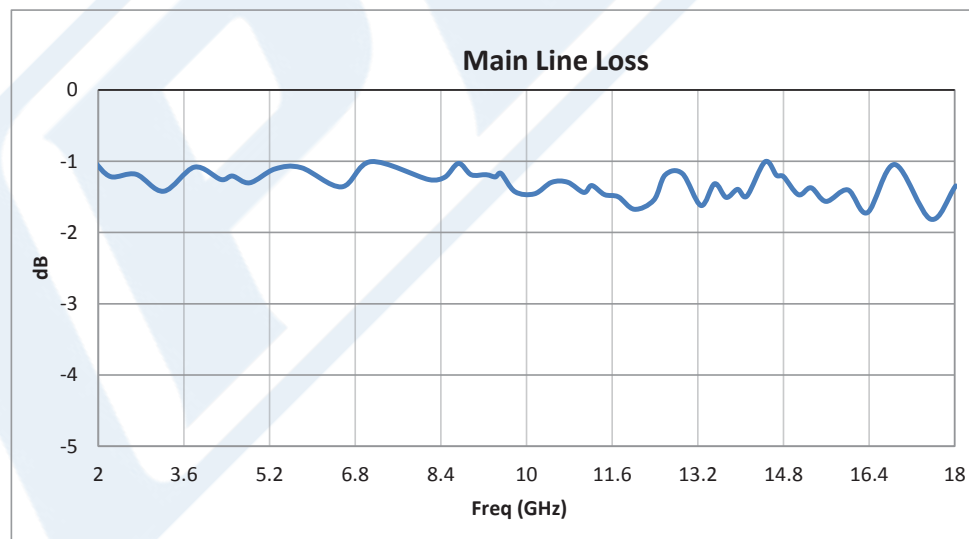
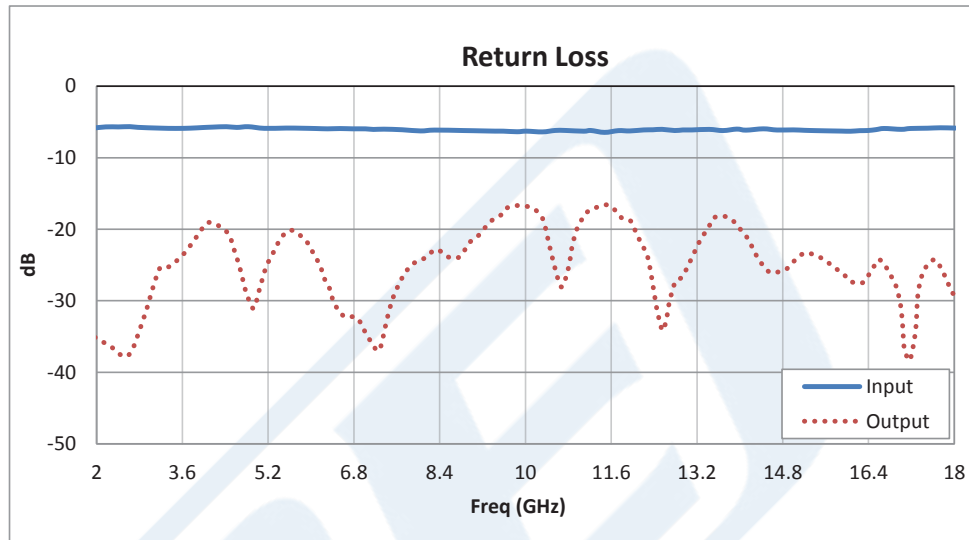
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Main line loss is the difference in power level between input and output.

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Directional 6 dB SMA Coupler From 2 GHz to 18 GHz Rated to 4 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.

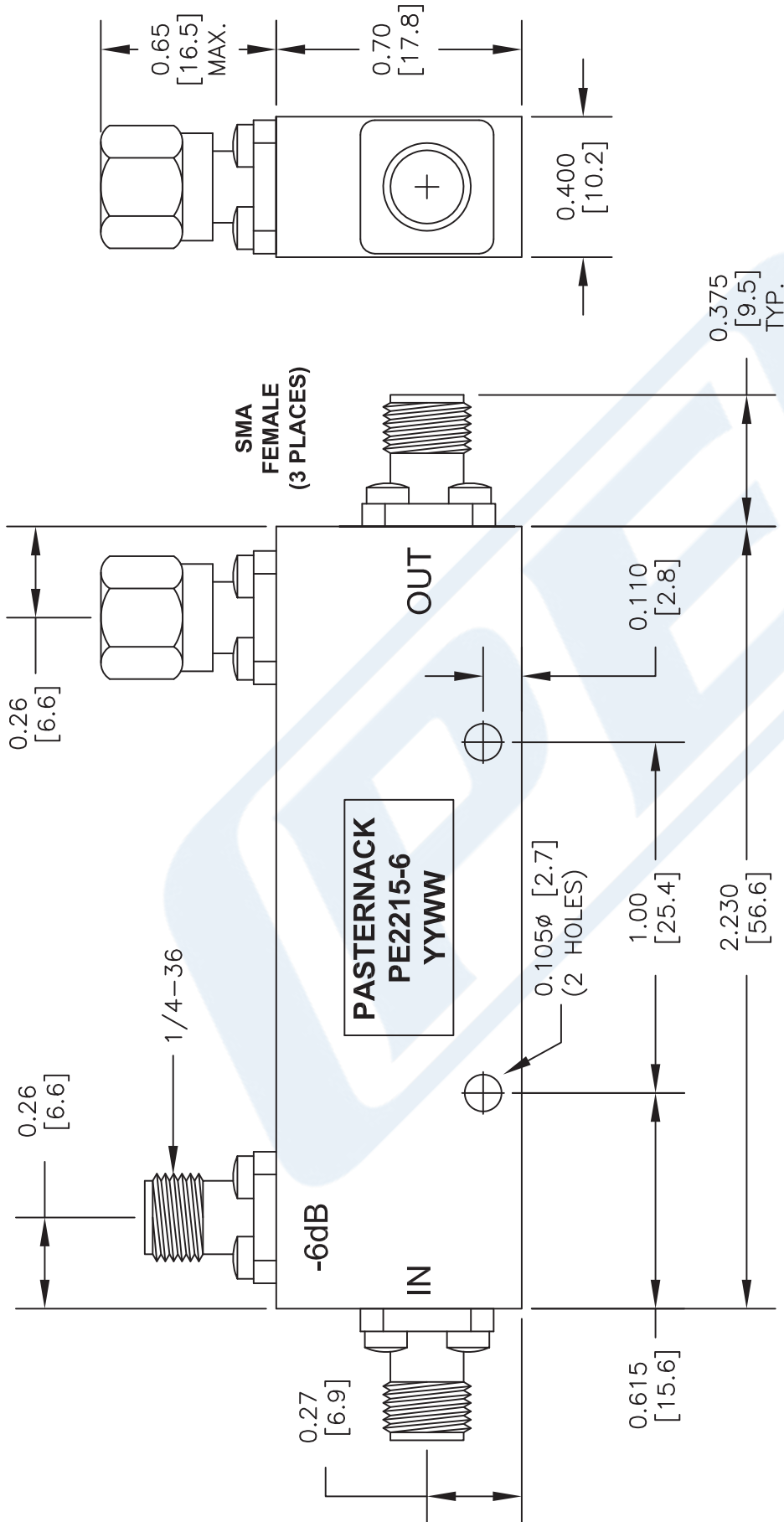
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Directional 6 dB SMA Coupler From 2 GHz to 18 GHz Rated to 4 Watts PE2215-6](https://www.pasternack.com/directional-6-db-sma-coupler-2-18-ghz-25-watts-pe2215-6-p.aspx)

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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.

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

***STANDARD TOLERANCES APPLY
ONLY TO DIMENSIONS IN INCHES**



PARNER
THE ENGINEER'S RF SOURCE

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DWG TITLE

PE2215-6

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].

FSCM NO. 53919

CAD FILE 040116

SCALE N/A

SIZE A

3045