

Directional 6 dB SMA Coupler From 4 GHz to 18 GHz Rated to 50 Watts

Couplers Technical Data Sheet

PE2CP1100

Features

- 4 to 18 GHz
- 50 Watts CW Max Power
- 6 dB Coupling Value
- Directional SMA Coupler
- Meets Standards for Humidity, Shock, Vibration, Altitude

Applications

- Communications Systems
- CDMA, GSM, LTE
- Amplifier Systems
- Amplifier Power Dividing
- Aviation/Aerospace
- Defense Applications
- Wireless Telecommunications

Description

The PE2CP1100 is an 6 dB RF coupler with 50 ohm SMA connectors operating from 4 to 18 GHz with a maximum input power of 50 Watts CW, and peak power handling of 0.3 kilowatt. The PE2CP1100 has a coupling factor of 1 dB, insertion loss of (excluding coupled power) and a maximum VSWR of 1.5:1. The coupler operates over a temperature range of -45° to 85° C and meets environmental standard for humidity, shock, vibration, and altitude. Couplers have many Applications and perform several functions within the RF/Microwave industry such as circuit feedback and signal sampling for measurement or monitoring.

Electrical Specifications

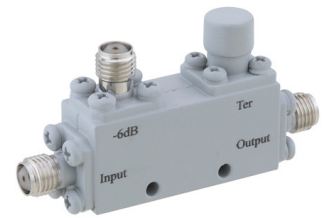
Description	Minimum	Typical	Maximum	Units
Frequency Range	4		18	GHz
Impedance		50		Ohms
Coupling	5.5	6	7	dB
Frequency Sensitivity		±0.5	±0.7	dB
Insertion Loss			0.5	dB
Directivity	12	14		dB
Main Line VSWR		1.4:1	1.5:1	
Input Power (CW)			50	Watts
Input Power (Peak)			300	Watts

Mechanical Specifications

Size

Length	1.3 in [33.02 mm]
Width/Dia.	0.43 in [10.92 mm]
Height	0.59 in [14.99 mm]

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 4 GHz to 18 GHz Rated to 50 Watts PE2CP1100](#)



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Weight	0.0152 lbs [6.89 g]
Finish	Gray
Housing Material and Plating	Aluminum

Configuration

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 11msec 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:

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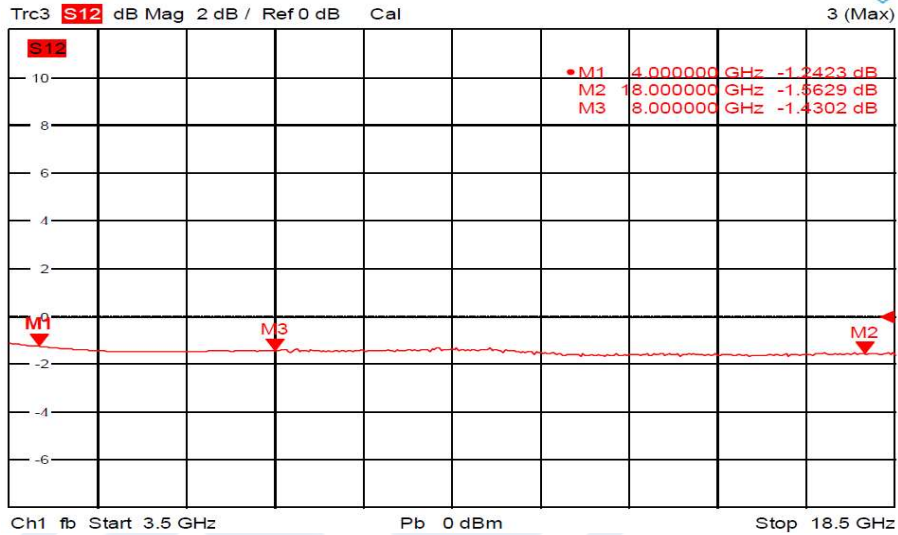
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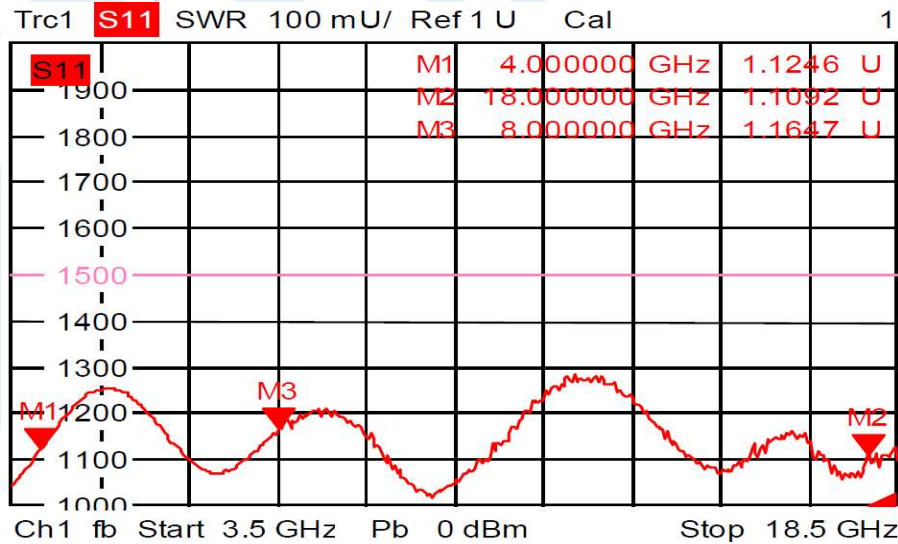
PE2CP1100

Typical Performance Data

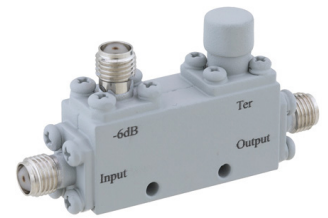
Insertion Loss



Primary VSWR



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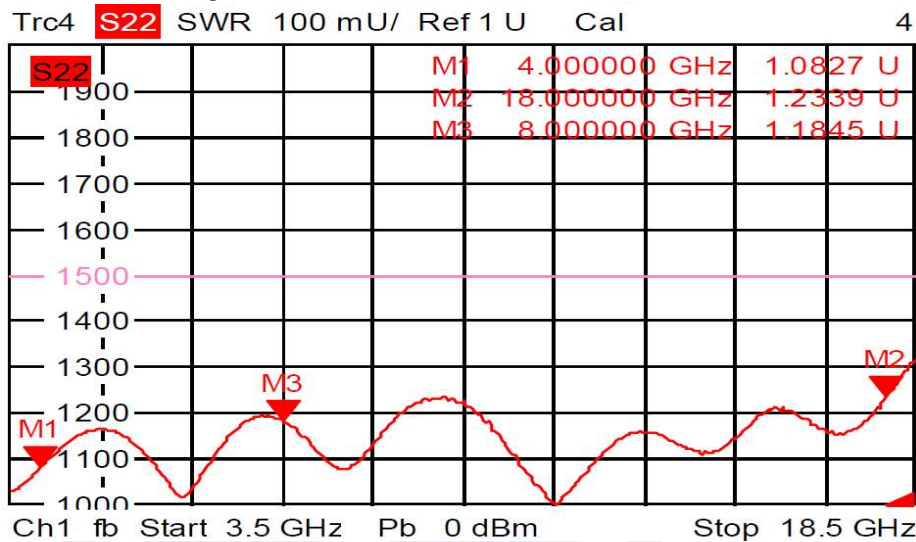


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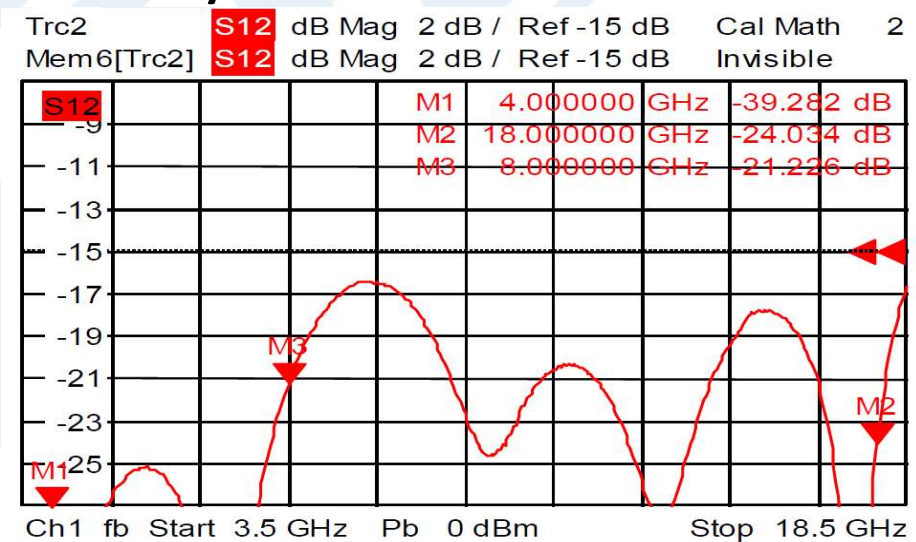
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Secondary VSWR



Directivity



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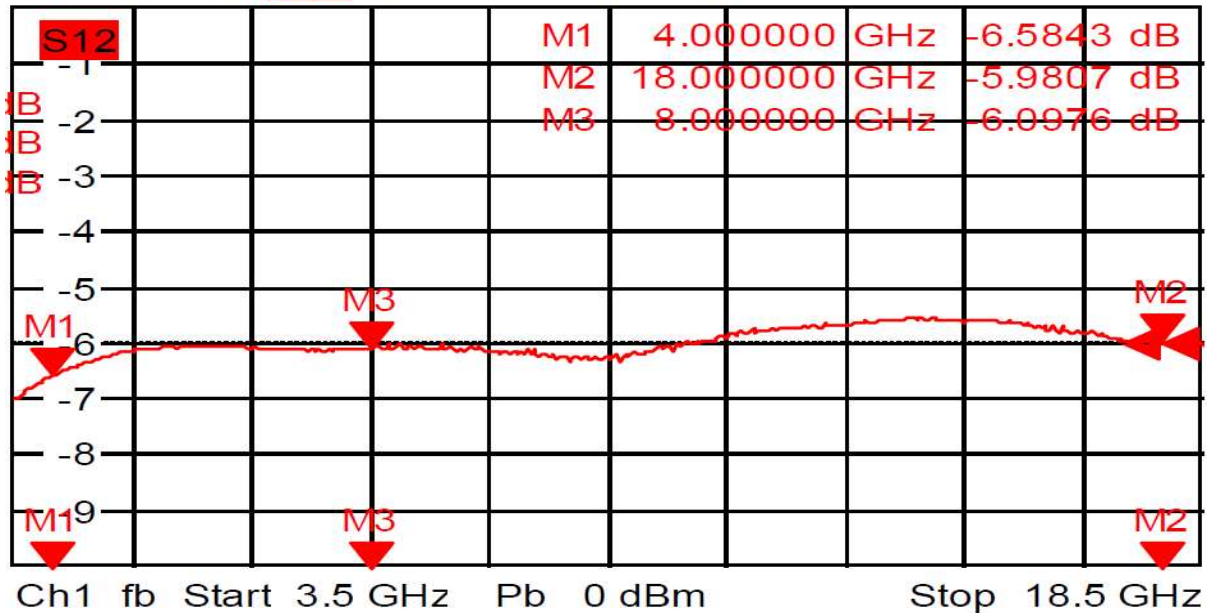
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Nominal Coupling

Trc3 **S12** dB Mag 1 dB / Ref -6 dB Cal 3
 Mem5[Trc3] **S12** dB Mag 1 dB / Ref -6 dB



Directional 6 dB SMA Coupler From 4 GHz to 18 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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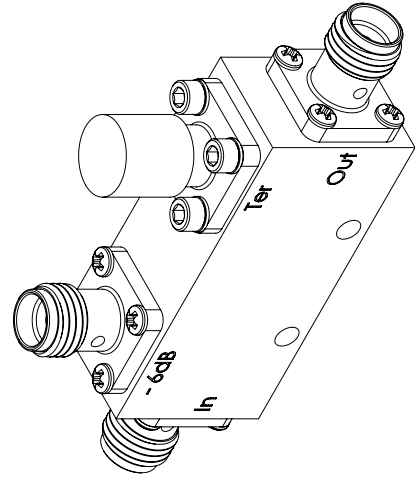
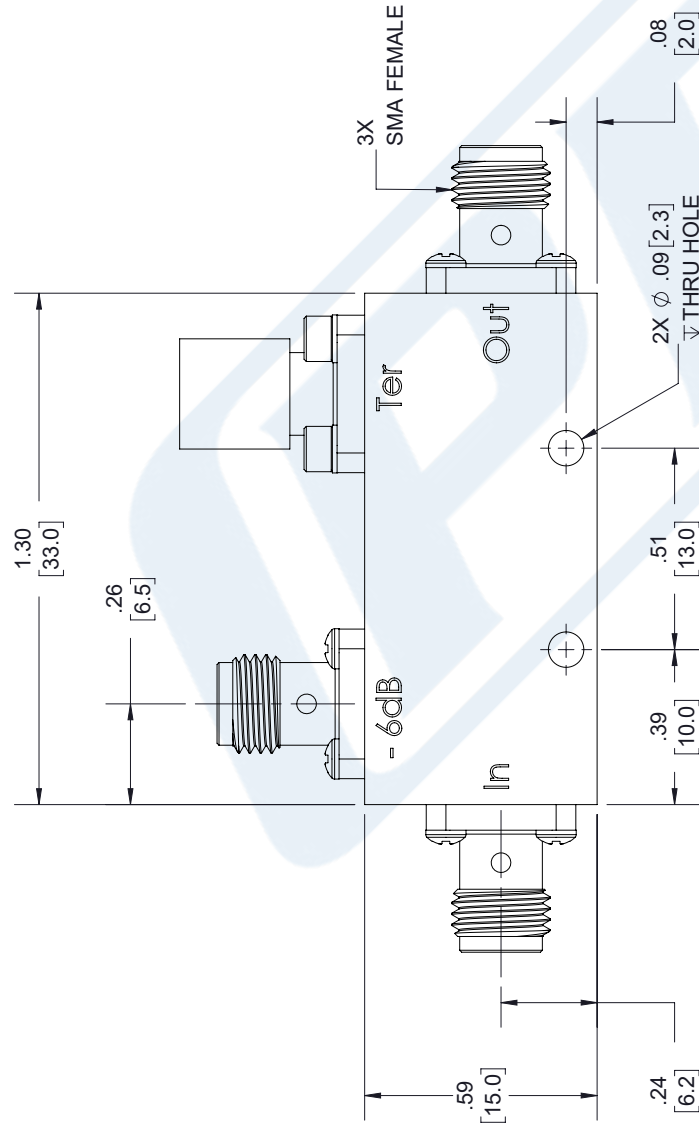
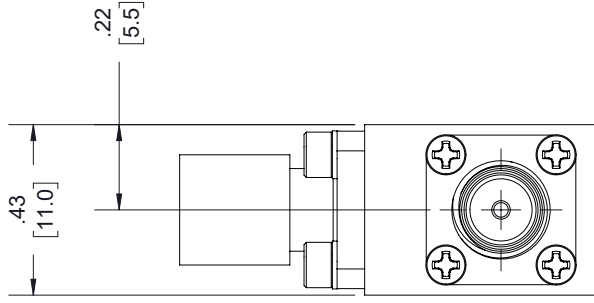
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PE2CP1100 CAD Drawing

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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	4/2/2020	S. PONG



UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE IN INCHES DIMENSIONS IN [] ARE MILLIMETERS

TOLERANCES:

.X = ±.2 [5.08] FRACTIONS
 .XX = ±.02 [.51] ±.1/32
 .XXX = ±.005 [.13] ANGLES ± 1°

CABLE LENGTH (L) TOLERANCES:
 L ≤ 12 [305] = +1 [25] / -0
 12 [305] < L ≤ 60 [1524] = +2 [51] / -0
 60 [1524] < L ≤ 120 [3048] = +4 [102] / -0
 120 [3048] < L ≤ 300 [7620] = +6 [152] / -0
 300 [7620] < L = +5%L / -0

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

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THIRD-ANGLE PROJECTION

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SHEET 1 OF 1
 SCALE N/A

REV A
 ITEM NO. PE2CP1100
 DRAWN BY K. Dang
 CAGE CODE A 53919

LABEL:
 PASTERNAK
 PE2CP1100
 D/C: YYYY

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