

Dual Directional 6 dB SMA Coupler from 500 MHz to 1000 MHz Rated to 50 Watts



Couplers Technical Data Sheet

PE2CP1145-6

Features

- Dual-Directional Coupler
- SMA Female Connectorized Design
- 500 to 1,000 MHz Frequency Range
- Coupling 6 ± 1.25 dB
- Directivity > 20 dB
- Low VSWR $< 1.2:1$
- Max Power 50 Watts (CW)

Applications

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

Description

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 PE2CP1145-6 is a 6 dB dual-directional coupler that operates from 500 to 1,000 MHz and can handle up to 50 Watts (CW) with 20 dB directivity minimum and 1.2:1 VSWR maximum. The package interface uses SMA female connectors.

The PE2CP1145-6 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	500		1,000	MHz
Impedance		50		Ohms
Coupling	4.75	6	7.25	dB
Frequency Sensitivity		± 0.7	± 0.75	dB
Insertion Loss		3	3.5	dB
Directivity	20	22		dB
Main Line VSWR		1.15:1	1.2:1	
Secondary Line VSWR		1.15:1	1.2:1	
Input Power (CW)			50	Watts
Input Power (Peak)			1	kWatts
10% Duty Cycle, 1us PW				

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Dual Directional 6 dB SMA Coupler from 500 MHz to 1000 MHz Rated to 50 Watts PE2CP1145-6](#)

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Mechanical Specifications

Size

Length	6.24 in [158.5 mm]
Width/Dia.	0.79 in [20.07 mm]
Height	0.43 in [10.92 mm]
Weight	1.82 lbs [825.54 g]
Housing Material and Plating	Aluminum

Configuration

Input Connector	SMA Female
Output Connector	SMA Female
Coupled Connectors	SMA Female

Environmental Specifications

Temperature

Operating Range	-40 to +85 deg C
Storage Range	-50 to +105 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.

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

Plotted and Other Data

Notes:

Dual Directional 6 dB SMA Coupler from 500 MHz to 1000 MHz 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-6-db-coupler-500-mhz-to-1-ghz-pe2cp1145-6-p.aspx>

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