PASTERNACK
an INFINITE brand

Directional 20 dB N Coupler from 500 MHz to 1000 MHz Rated to 500 Watts

Couplers Technical Data Sheet PE2CP1142-20

Features

- Directional Coupler
- N Female Connectorized Design
- 500 to 1000 MHz Frequency Range
- Coupling 20±0.8 dB
- Directivity > 20 dB
- VSWR < 1.2:1
- Max Power 500 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 PE2CP1142-20 is a 20 dB directional coupler that operates from 500 to 1000 MHz and can handle up to 500 Watts (CW) with 20 dB directivity minimum and 1.2:1 VSWR maximum. The package interface uses N female connectors.

The PE2CP1142-20 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	500		1,000	MHz
Impedance		50		Ohms
Coupling	19.2	20	20.8	dB
Frequency Sensitivity		±0.3	±0.5	dB
Insertion Loss		0.1	0.3	dB
Directivity	20	22		dB
Main Line VSWR		1.1:1	1.2:1	
Secondary Line VSWR		1.1:1	1.2:1	
Input Power (CW)			500	Watts
Input Power (Peak) 10% Duty Cycle, 10us PW			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 N Coupler from 500 MHz to 1000 MHz Rated to 500 Watts PE2CP1142-20

Pasternack Enterprises, Inc. • P.O. Box 16759, Irvine, CA 92623
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Mechanical Specifications

Size

Length	9.75 in [247.65 mm]
Width/Dia.	2.067 in [52.5 mm]
Height	1.092 in [27.74 mm]
Weight	1.44 lbs [653.17 g]
Housing Material and Plating	Aluminum

Configuration

Input Connector	N Female
Output Connector	N Female
Coupled Connectors	N 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:

Directional 20 dB N Coupler from 500 MHz to 1000 MHz Rated to 500 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-20-db-coupler-500-mhz-to-1-ghz-pe2cp1142-20-p.aspx

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PE2CP1142-20 CAD Drawing

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