



Directional 20 dB N Coupler From 4 GHz to 18 GHz Rated to 50 Watts

Couplers Technical Data Sheet

PE2CP1114-20

Features

- Directional Coupler
- 4 to 18 GHz Frequency Range
- Coupling 20±1 dB
- Directivity > 12 dB
- VSWR < 1.5:1
- Max Power 50 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 PE2CP1114-20 is a 20 dB directional coupler that operates from 4 to 18 GHz and can handle up to 50 Watts (CW) with 12 dB directivity minimum and 1.5:1 VSWR maximum. The package interface uses N female connectors, and is also REACH and RoHS compliant.

The PE2CP1114-20 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	4		18	GHz
Impedance		50		Ohms
Coupling	19	20	21	dB
Frequency Sensitivity		±0.6	±0.8	dB
Insertion Loss		0.4	0.7	dB
Directivity	12	18		dB
Main Line VSWR		1.3:1	1.5:1	
Secondary Line VSWR		1.4:1	1.5:1	
Input Power (CW)			50	Watts
Input Power (Peak)			1	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 4 GHz to 18 GHz Rated to 50 Watts PE2CP1114-20](#)



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Mechanical Specifications

Size

Length	1.54 in [39.12 mm]
Width/Dia.	0.79 in [20.07 mm]
Height	0.79 in [20.07 mm]

Finish	Gray
Housing Material and Plating	Aluminum

Configuration

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

Directional 20 dB N 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.

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 4 GHz to 18 GHz Rated to 50 Watts PE2CP1114-20](#)

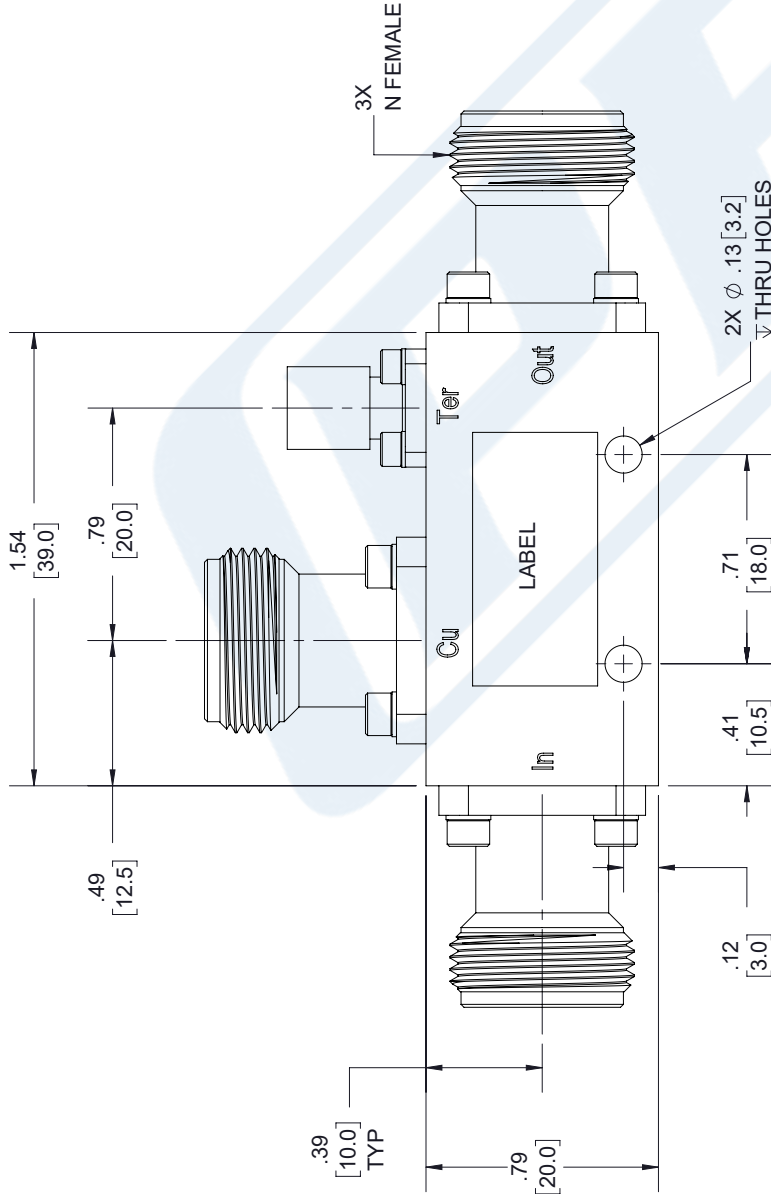
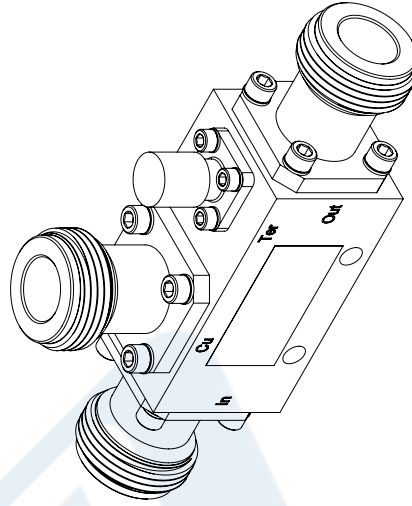
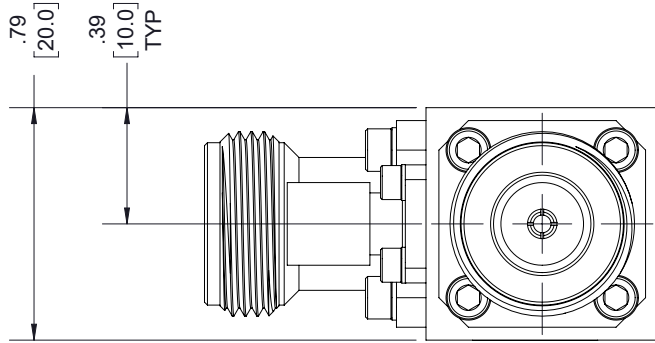
URL: <https://www.pasternack.com/directional-20-db-n-coupler-18-ghz-pe2cp1114-20-p.aspx>

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PE2CP1114-20 CAD Drawing

Directional 20 dB N Coupler From 4 GHz to 18 GHz Rated to 50 Watts

REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	01/24/19	S.PONG



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

TOLERANCES:
X±.2 [5.08] FRACTIONS
.XX±.01 [.25] ±.132
.XXX±.005 [.13] ANGLES ± 1°

ALL DIMENSIONS SHOWN
ARE FOR REFERENCE ONLY.

THIRD-ANGLE PROJECTION

PE PASTERNAK
an INFINITO brand

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SHEET 1 OF 1
SCALE N/A

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