



Directional 10 dB N Coupler From 4 GHz
to 18 GHz Rated to 50 Watts

Couplers Technical Data Sheet

PE2CP1114-10

Features

- Directional Coupler
- 4 to 18 GHz Frequency Range
- Coupling 10±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 PE2CP1114-10 is a 10 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 PE2CP1114-10 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	9	10	11	dB
Frequency Sensitivity		±0.5	±0.7	dB
Insertion Loss		0.5	0.7	dB
Directivity	12	16		dB
Main Line VSWR		1.4:1	1.5:1	
Secondary Line VSWR		1.4:1	1.5:1	
Input Power (CW)			50	Watts
Input Power (Peak)			500	Watts

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Directional 10 dB N Coupler From 4 GHz to 18 GHz Rated to 50 Watts PE2CP1114-10](#)



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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

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 10 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 10 dB N Coupler From 4 GHz to 18 GHz Rated to 50 Watts PE2CP1114-10](#)

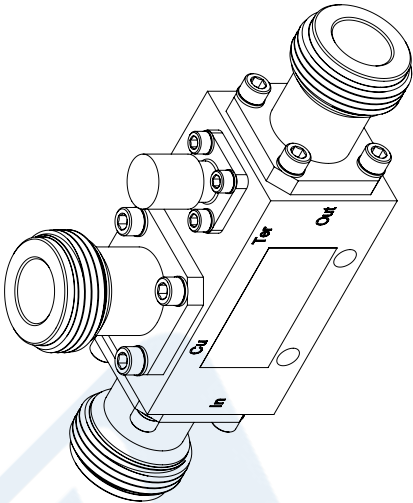
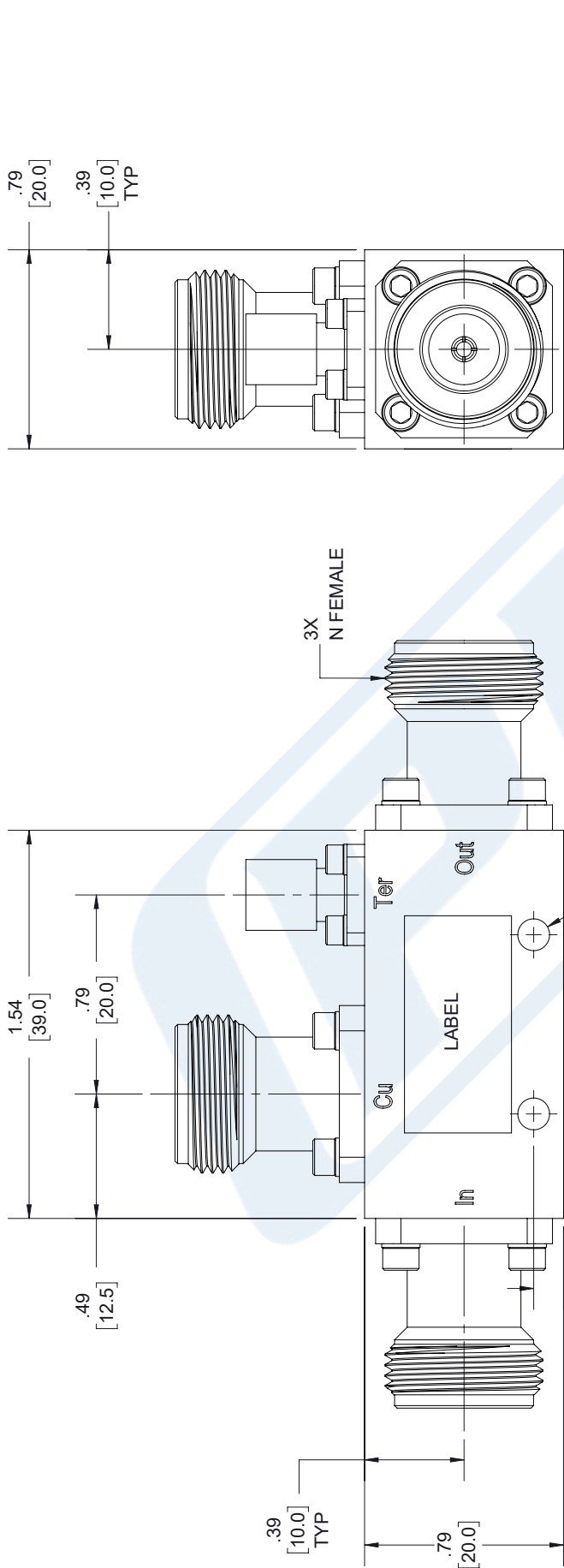
URL: <https://www.pasternack.com/directional-10-db-n-coupler-18-ghz-pe2cp1114-10-p.aspx>

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.

PE2CP1114-10 CAD Drawing

Directional 10 dB N Coupler From 4 GHz to 18 GHz Rated to 50 Watts

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



LABEL:

PASTERNAK
PE2CP1114-10
D/C: XXXX

UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE IN INCHES DIMENSIONS IN [] ARE MILLIMETERS	
TOLERANCES:	FRACTIONS
X±.2 [5.08]	±.132
XX±.01 [.25]	±.005
XXX±.005 [.13]	±.001
ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.	
THIRD-ANGLE PROJECTION	

PE PASTERNAK
an INFINITI[®] brand

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SIZE	CAGE	DRAWN BY	PART NUMBER	REV
A	53919	KDANG	PE2CP1114-10	A

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SHEET	1 OF 1
SCALE	N/A

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