



## Directional 20 dB SMA Coupler From 1 GHz to 2 GHz Rated to 50 Watts

### Couplers Technical Data Sheet

PE2CP1108

#### Features

- 1 to 2 GHz
- 50 Watts CW Max Power
- 20 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 PE2CP1108 is an 20 dB RF coupler with 50 ohm SMA connectors operating from 1 to 2 GHz with a maximum input power of 50 Watts CW, and peak power handling of 3 kilowatt. The PE2CP1108 has a coupling factor of 1 dB, insertion loss of (excluding coupled power) and a maximum VSWR of 1.1:1. The coupler operates over a temperature range of -55° to 105° 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	1		2	GHz
Impedance		50		Ohms
Coupling	18.75	20	21.25	dB
Frequency Sensitivity			±0.75	dB
Insertion Loss			0.15	dB
Directivity	25			dB
Main Line VSWR			1.1:1	
Input Power (CW)			50	Watts
Input Power (Peak)			3	kWatts

#### Mechanical Specifications

##### Size

Length	1.78 in [45.21 mm]
Width/Dia.	0.38 in [9.65 mm]
Height	0.5 in [12.7 mm]

Finish	Gray
Housing Material and Plating	Aluminum

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 SMA Coupler From 1 GHz to 2 GHz Rated to 50 Watts PE2CP1108](#)



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#### Configuration

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

#### Environmental Specifications

##### Temperature

Operating Range	-55 to +105 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 SMA Coupler From 1 GHz to 2 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 SMA Coupler From 1 GHz to 2 GHz Rated to 50 Watts PE2CP1108](#)

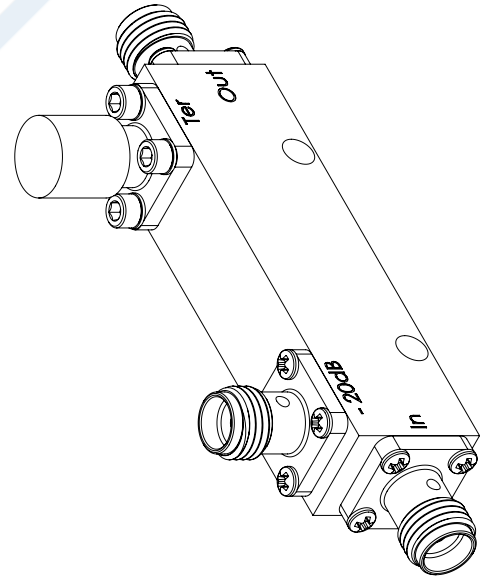
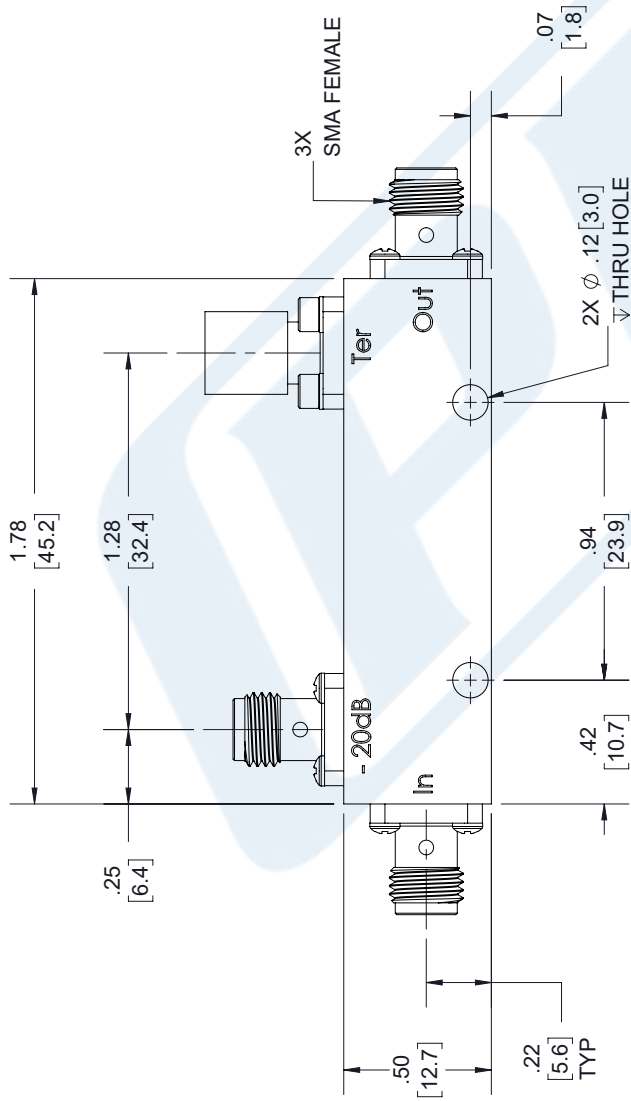
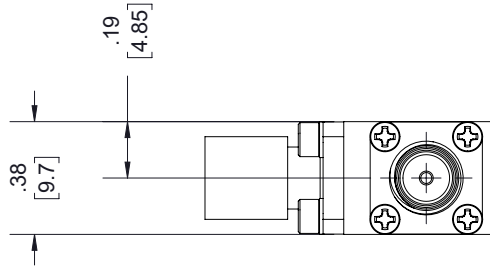
URL: <https://www.pasternack.com/directional-20-db-sma-coupler-2-ghz-pe2cp1108-p.aspx>

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# PE2CP1108 CAD Drawing

Directional 20 dB SMA Coupler From 1 GHz to 2 GHz Rated to 50 Watts

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	4/8/2020	S. PONG



LABEL:

PASTERNAK  
PE2CP1108  
D/C: YYWW

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

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

**PE PASTERNAK**  
an INFINIT brand

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THIRD-ANGLE PROJECTION

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SHEET 1 OF 1  
SCALE N/A

REV A  
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