



## Directional 20 dB SMA Coupler From 2.6 GHz to 5.2 GHz Rated to 50 Watts

### Couplers Technical Data Sheet

PE2CP1109

#### Features

- 2.6 to 5.2 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 PE2CP1109 is an 20 dB RF coupler with 50 ohm SMA connectors operating from 2.6 to 5.2 GHz with a maximum input power of 50 Watts CW, and peak power handling of 3 kilowatt. The PE2CP1109 has a coupling factor of 1 dB, insertion loss of (excluding coupled power) and a maximum VSWR of 1.25:1. 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       | 2.6     |         | 5.2     | GHz    |
| Impedance             |         | 50      |         | Ohms   |
| Coupling              | 18.75   | 20      | 21.25   | dB     |
| Frequency Sensitivity |         |         | ±0.75   | dB     |
| Insertion Loss        |         |         | 0.2     | dB     |
| Directivity           | 20      |         |         | dB     |
| Main Line VSWR        |         |         | 1.25:1  |        |
| Input Power (CW)      |         |         | 50      | Watts  |
| Input Power (Peak)    |         |         | 3       | kWatts |

#### Mechanical Specifications

##### Size

|            |                   |
|------------|-------------------|
| Length     | 1 in [25.4 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 2.6 GHz to 5.2 GHz Rated to 50 Watts PE2CP1109](#)



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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 2.6 GHz to 5.2 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 2.6 GHz to 5.2 GHz Rated to 50 Watts PE2CP1109](#)

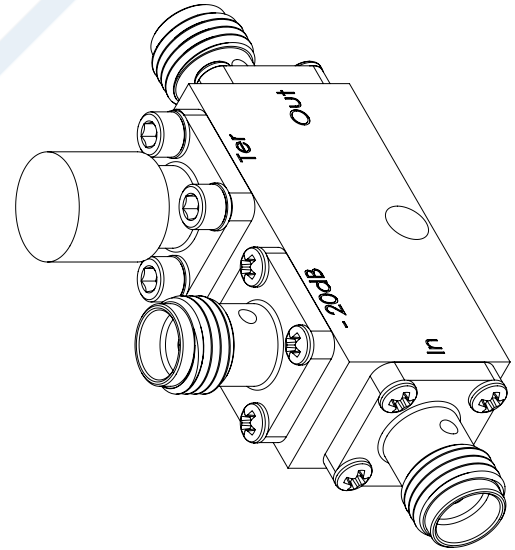
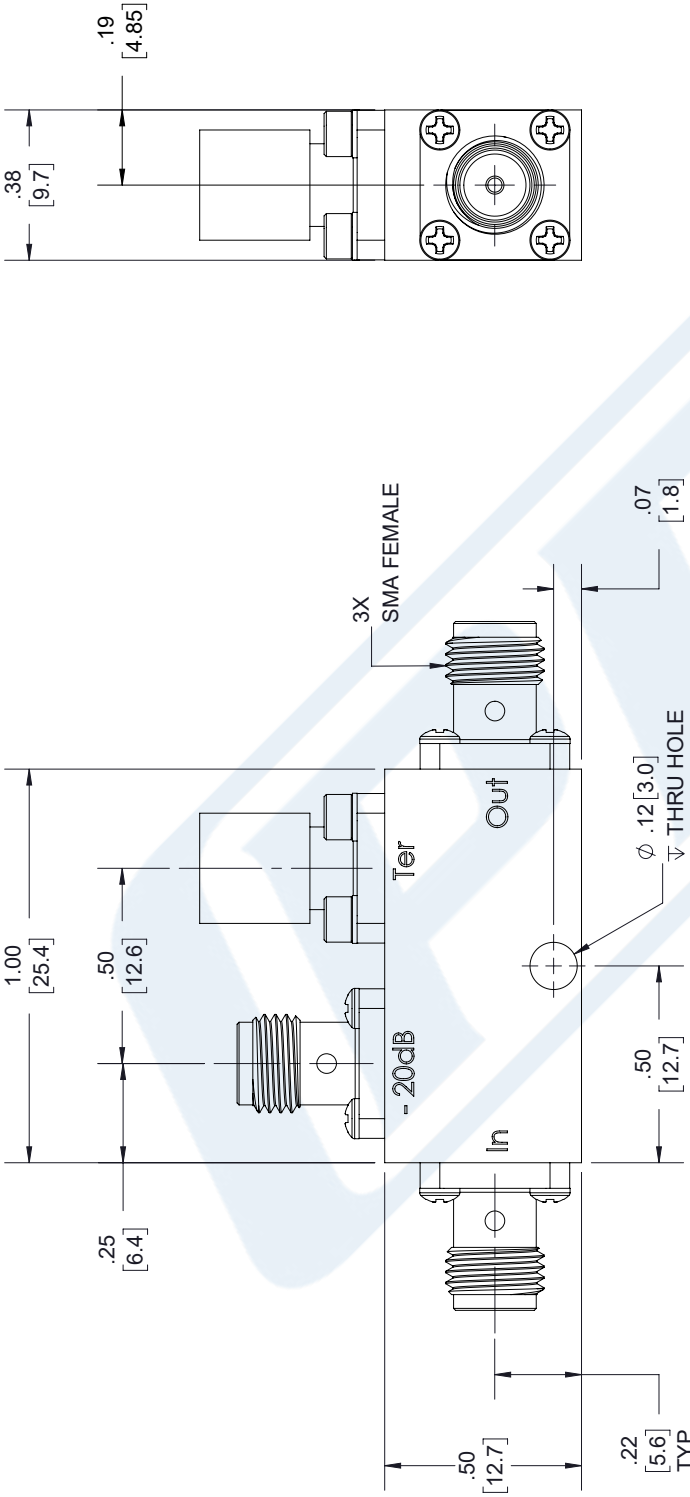
URL: <https://www.pasternack.com/directional-20-db-sma-coupler-5.2-ghz-pe2cp1109-p.aspx>

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.

# PE2CP1109 CAD Drawing

Directional 20 dB SMA Coupler From 2.6 GHz to 5.2 GHz Rated to 50 Watts

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



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

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

THIRD-ANGLE PROJECTION

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SHEET 1 OF 1  
SCALE N/A

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 CAGE CODE A 53919  
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LABEL:  
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 PE2CP1109  
 D/C: YYWW

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