

Directional 10 dB SMA Coupler From 7 GHz to 18 GHz Rated to 50 Watts



PE2CP1106

Features

- 7 to 18 GHz
- 50 Watts CW Max Power
- 10 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 PE2CP1106 is an 10 dB RF coupler with 50 ohm SMA connectors operating from 7 to 18 GHz with a maximum input power of 50 Watts CW, and peak power handling of 1 kilowatt. The PE2CP1106 has a coupling factor of 1 dB, insertion loss of (excluding coupled power) and a maximum VSWR of 1.35:1. The coupler operates over a temperature range of -45° to 85° 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 | Min | Typ | Max | Units |
|--------------------|-----|--------|--------|--------|
| Frequency Range | 7 | | 18 | GHz |
| Impedance | | 50 | | Ohms |
| Coupling | 9 | 10 | 11 | dB |
| Freq. Sensitivity | | | ±0.75 | dB |
| Insertion Loss | | 0.75 | 1 | dB |
| Directivity | 15 | 17 | | dB |
| Main Line VSWR | | 1.25:1 | 1.35:1 | |
| Input Power (CW) | | | 50 | Watts |
| Input Power (Peak) | | | 1 | 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] |
| Weight | 0.0455 lbs [20.64 g] |
| Finish | Gray |
| Housing Material and Plating | Aluminum |

Configuration

| | |
|--------------------|------------|
| Input Connector | SMA Female |
| Output Connector | SMA Female |
| Coupled Connectors | SMA Female |

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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

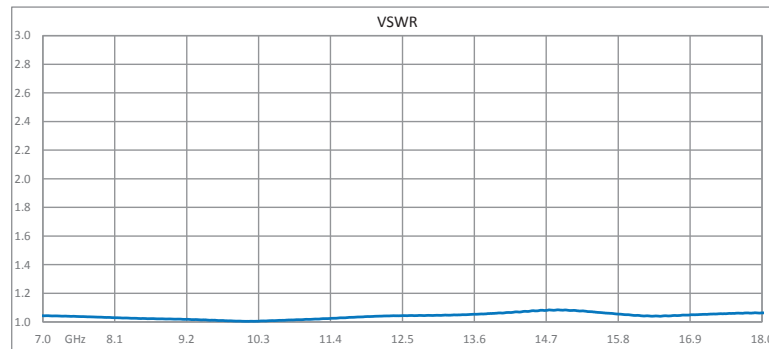
Notes:

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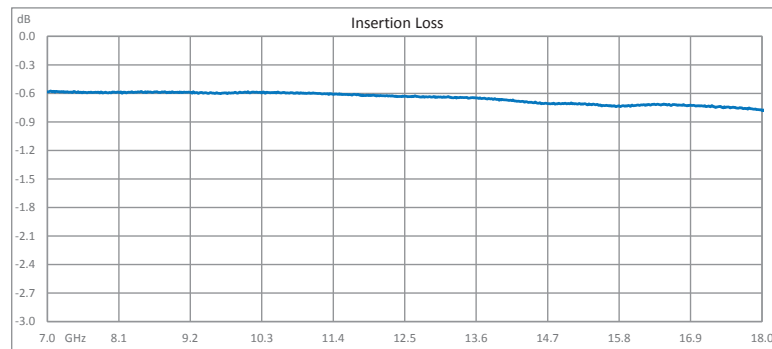


Typical Performance Data



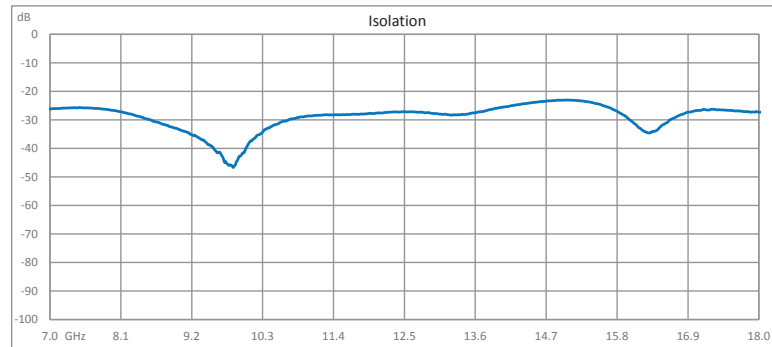
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Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Directional 10 dB SMA Coupler From 7 GHz to 18 GHz Rated to 50 Watts PE2CP1106](https://www.pasternack.com/directional-10-db-sma-coupler-18-ghz-pe2cp1106-p.aspx)

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The information contained within 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 Enterprises reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack Enterprises does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack Enterprises does not assume liability arising out of the use of any part or document.

PE2CP1106 CAD Drawing

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