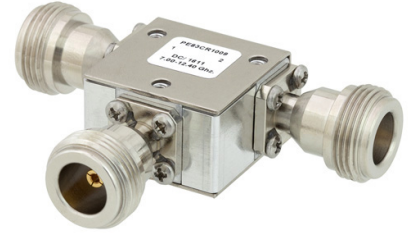


High Power Circulator With 20 dB Isolation From 7 GHz to 12.4 GHz, 50 Watts And N Female

PE83CR1009



Features

- Forward/Reverse Power 50 watts
- Frequency Range of 7 to 12.4 GHz
- Female N Connectors
- Low VSWR

Applications

- Radar Systems
- Military
- Wireless Radio Systems
- Telecom Infrastructure
- Communication Systems
- R&D Labs
- Microwave Radio Systems

Description

The PE83CR1009 is a high power circulator offering a forward and reverse power rating of 50 watts over an operational frequency band of 7 to 12.4 GHz. This coaxial part uses N female connectors on all ports and has a minimum of 20 dB of isolation.

Pasternack offers a wide variety of circulators to fit your needs. These unique devices enable two signals to use one channel. The classic use of this three port device is for the line/coax between an antenna and a transceiver, allowing the receive signal to come from the antenna (port 1) to the receiver (port 2) while the transmit signal goes from the transmitter (port 3) to the antenna (port 1). An isolator can be created by terminating one port into a matched load. These components can be used in antenna transmitting and receiving, radar, amplifier systems and anything that requires isolation from a signal reflection and the ability to send signals in opposite directions down a single channel. These circulators feature excellent insertion loss, high isolation and reliability.

Electrical Specifications

| Description | Min | Typ | Max | Units |
|-------------------|-----|-----|--------|-------|
| Frequency Range | 7 | | 12.4 | GHz |
| Impedance | | 50 | | Ohms |
| Insertion Loss | | | 0.6 | dB |
| Isolation | 20 | | | dB |
| VSWR | | | 1.25:1 | |
| Forward Power, CW | | | 50 | Watts |
| Reverse Power, CW | | | 50 | Watts |

Electrical Specification Notes:
Values at 25°C, sea level.

Mechanical Specifications

Size

| | |
|--------|----------------------|
| Length | 1 in [25.4 mm] |
| Width | 0.63 in [16 mm] |
| Height | 1 in [25.4 mm] |
| Weight | 0.1865 lbs [84.59 g] |

Configuration

| | |
|---------------|-----------------|
| Design | Single Junction |
| Package Style | Connectorized |
| Connector 1 | N Female |
| Connector 2 | N Female |

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PE83CR1009

Connector 3

N Female

Environmental Specifications

Temperature

Operating Range

0 to +50 deg C

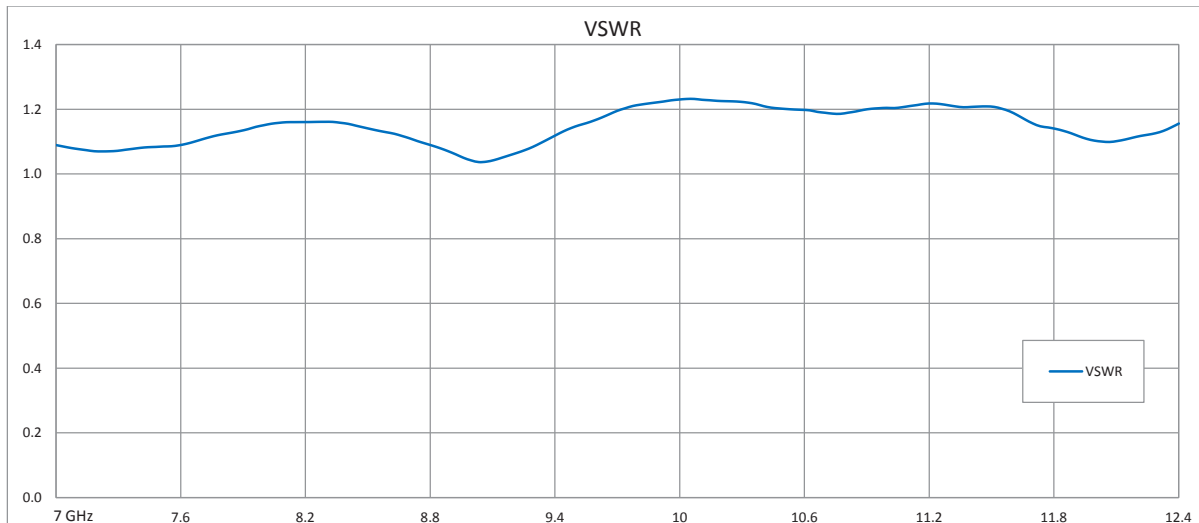
Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:

- Values at 25°C, sea level.

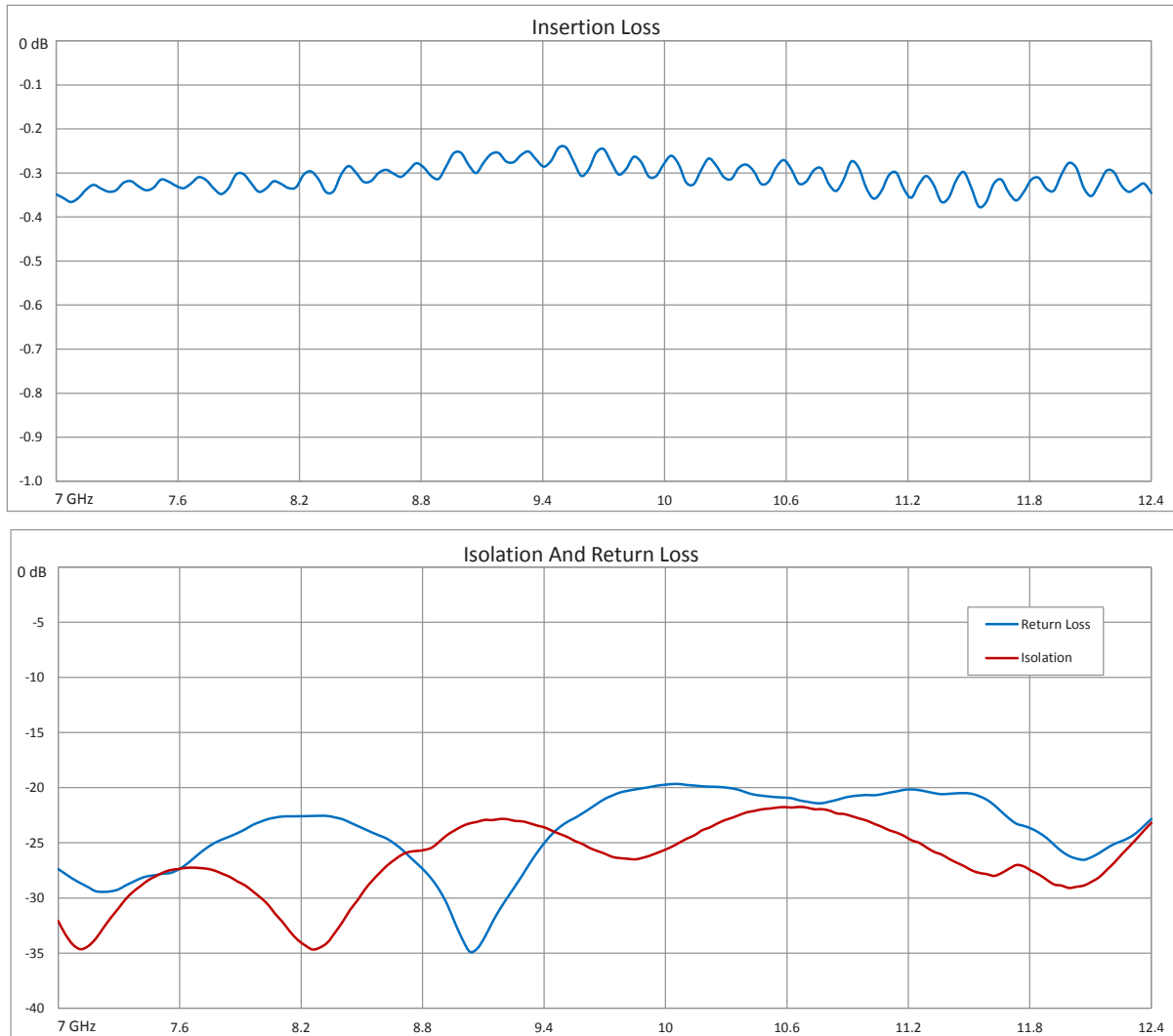
Typical Performance Data



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High Power Circulator With 20 dB Isolation From 7 GHz to 12.4 GHz, 50 Watts And N Female 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: [High Power Circulator With 20 dB Isolation From 7 GHz to 12.4 GHz, 50 Watts And N Female PE83CR1009](https://www.pasternack.com/high-power-circulator-20db-isolation-12.4-ghz-50-watts-n-female-pe83cr1009-p.aspx)

URL: <https://www.pasternack.com/high-power-circulator-20db-isolation-12.4-ghz-50-watts-n-female-pe83cr1009-p.aspx>

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.

PE83CR1009 CAD Drawing

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