

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



FMCR1009

Features

- Forward Power of 50 watts
- Frequency Range of 7 to 12.4 GHz
- Female N Connectors
- VSWR of 1.25:1
- Isolation of 20 dB

Applications

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

Description

The FMCR1009 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.

Fairview Microwave 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, low VSWR, and a wide dynamic temperature range.

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

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Connector 2
Connector 3

N Female
N Female

Environmental Specifications

Temperature

Operating Range

0 to +50 deg C

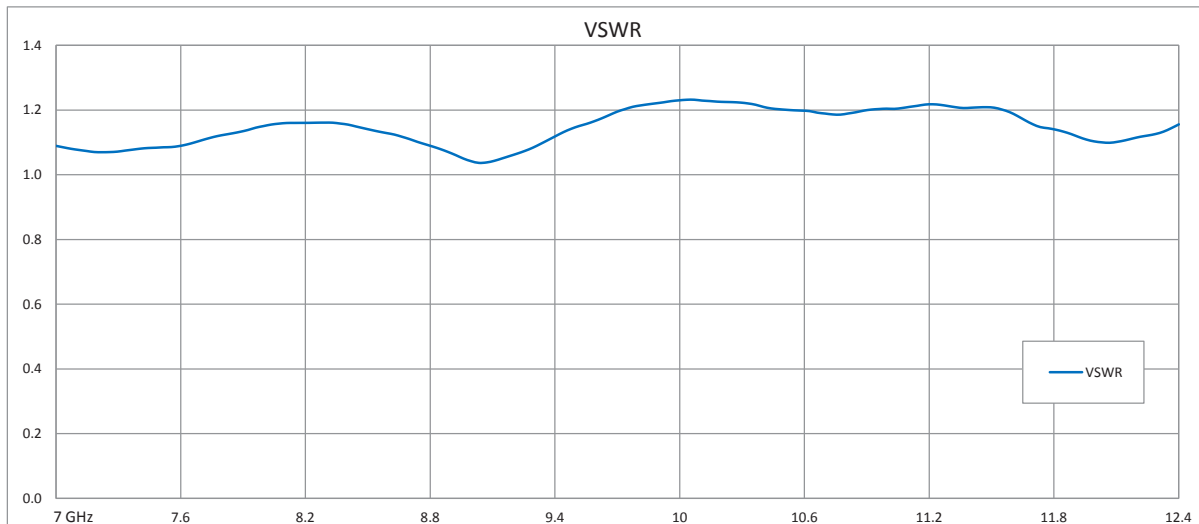
Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:

- Values at 25°C, sea level.

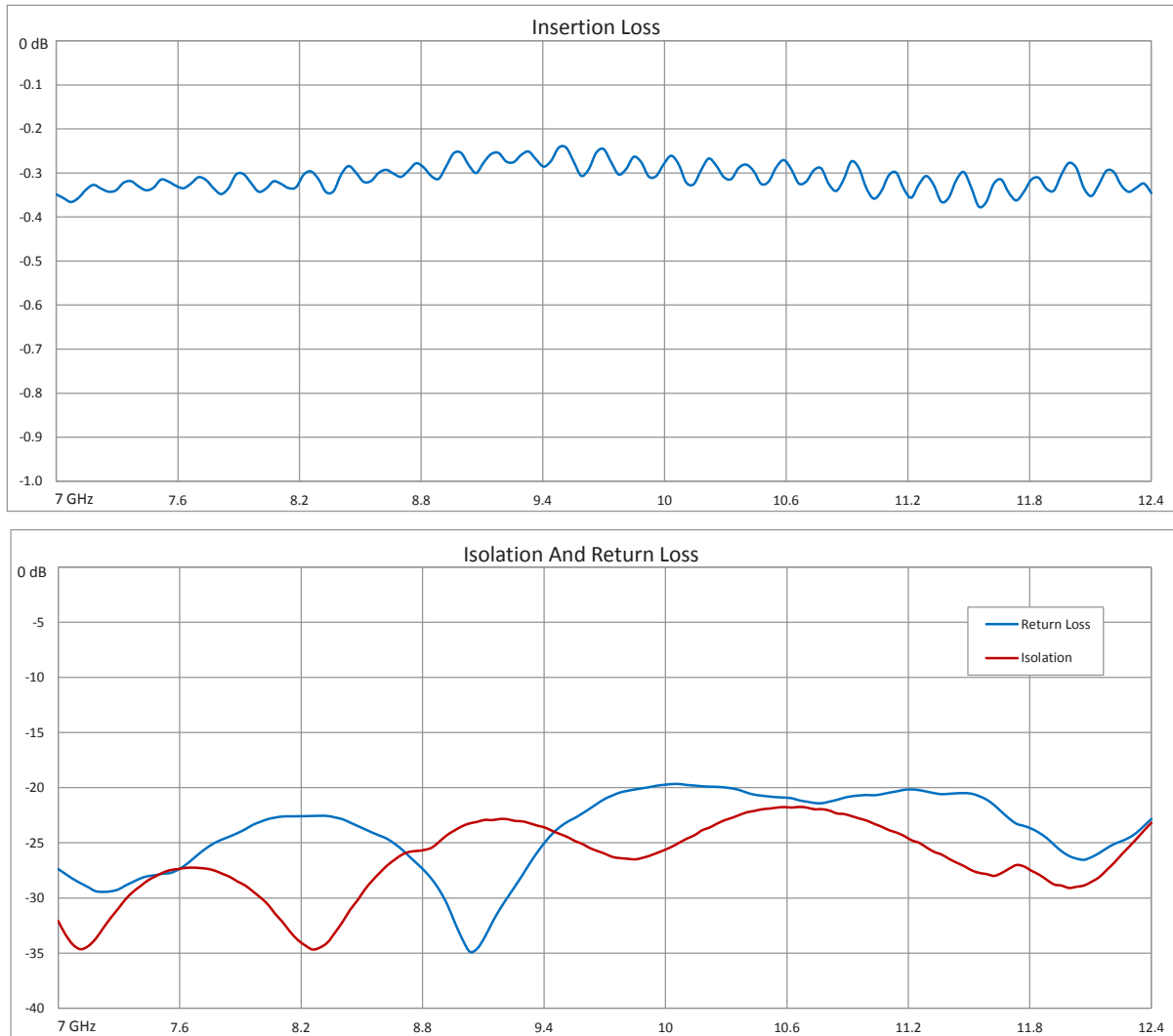
Typical Performance Data



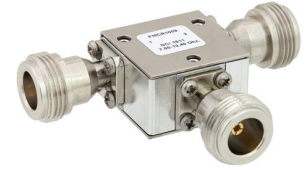
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High Power Circulator N Female With 20 dB Isolation From 7 GHz to 12.4 GHz Rated to 50 Watts from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

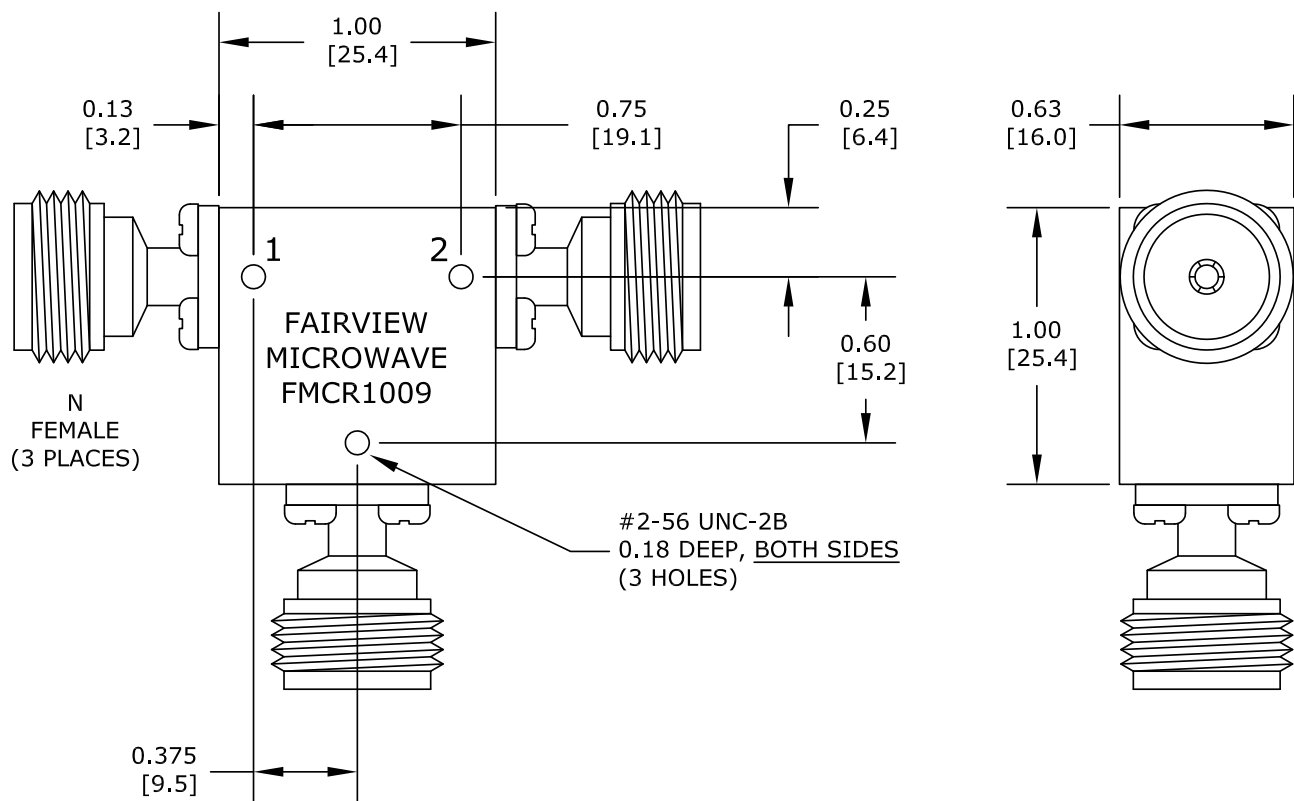
For additional information on this product, please click the following link: [High Power Circulator N Female With 20 dB Isolation From 7 GHz to 12.4 GHz Rated to 50 Watts FMCR1009](https://www.fairviewmicrowave.com/n-female-high-power-circulator-20db-isolation-12.4-ghz-50-watts-fmcr1009-p.aspx)

URL: <https://www.fairviewmicrowave.com/n-female-high-power-circulator-20db-isolation-12.4-ghz-50-watts-fmcr1009-p.aspx>

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FMCRC1009 CAD Drawing

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TITLE	DWG NO		CAGE CODE		
	FMCRC1009		3FKR5		
CAD FILE		SHEET		SCALE	SIZE
020116				N/A	A
				2233	