

High Power Circulator SMA Female With 18 dB Isolation From 1 GHz to 2 GHz Rated to 50 Watts

The FMCR1000 is a high power circulator offering a forward and reverse power rating of 100 Watts over an operational frequency band of 1 to 2 GHz. This coaxial part uses SMA female connectors on all ports and has a minimum of 18 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	1		2	GHz
Insertion Loss			0.6	dB
Isolation	18			dB
VSWR			1.35:1	
Forward Power, CW			100	Watts
Reverse Power, CW			100	Watts

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

Mechanical Specifications

Size	
Length	2.6 in [66.04 mm]
Width	0.75 in [19.05 mm]
Height	2.6 in [66.04 mm]
Weight	0.5915 lbs [268.3 g]

Configuration

Design	Single Junction
Package Style	Connectorized
Connector 1	SMA Female
Connector 2	SMA Female
Connector 3	SMA Female

Environmental Specifications

Temperature	
Operating Range	10 to +40 deg C



Features:

- Forward Power of 100 Watts
- Frequency Range of 1 to 2 GHz
- Female SMA Connectors
- VSWR of 1.35:1
- Isolation of 18 dB

Applications:

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

Fairview Microwave
301 Leora Ln., Suite 100,
Lewisville, TX 75056
Tel: 1-800-715-4396 / (972) 649-6678
Fax: (972) 649-6689
www.fairviewmicrowave.com
sales@fairviewmicrowave.com

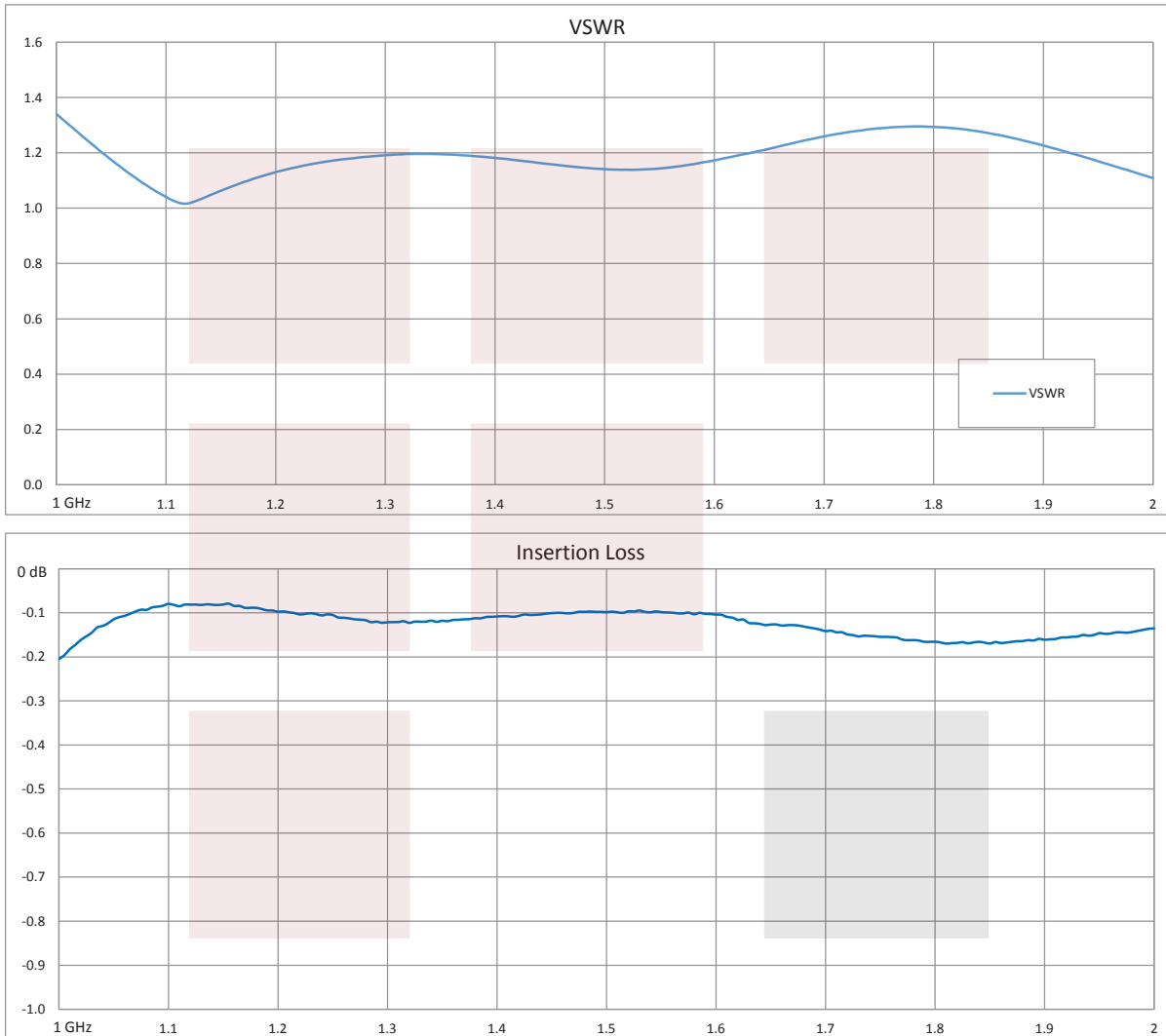
Compliance Certifications (see [product page](#) for current document)

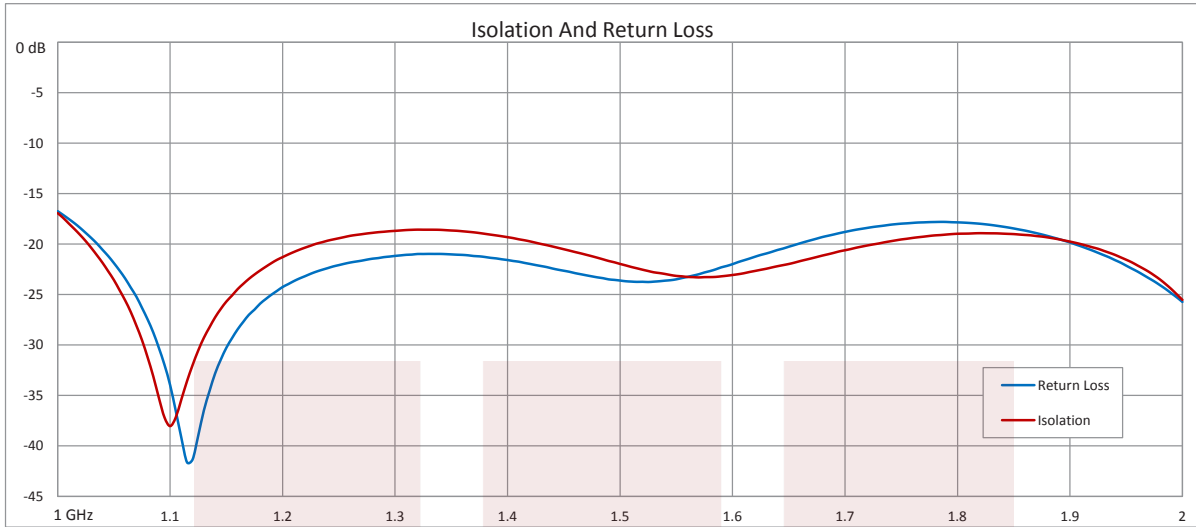
Plotted and Other Data

Notes:

- Values at 25°C, sea level.

Typical Performance Data



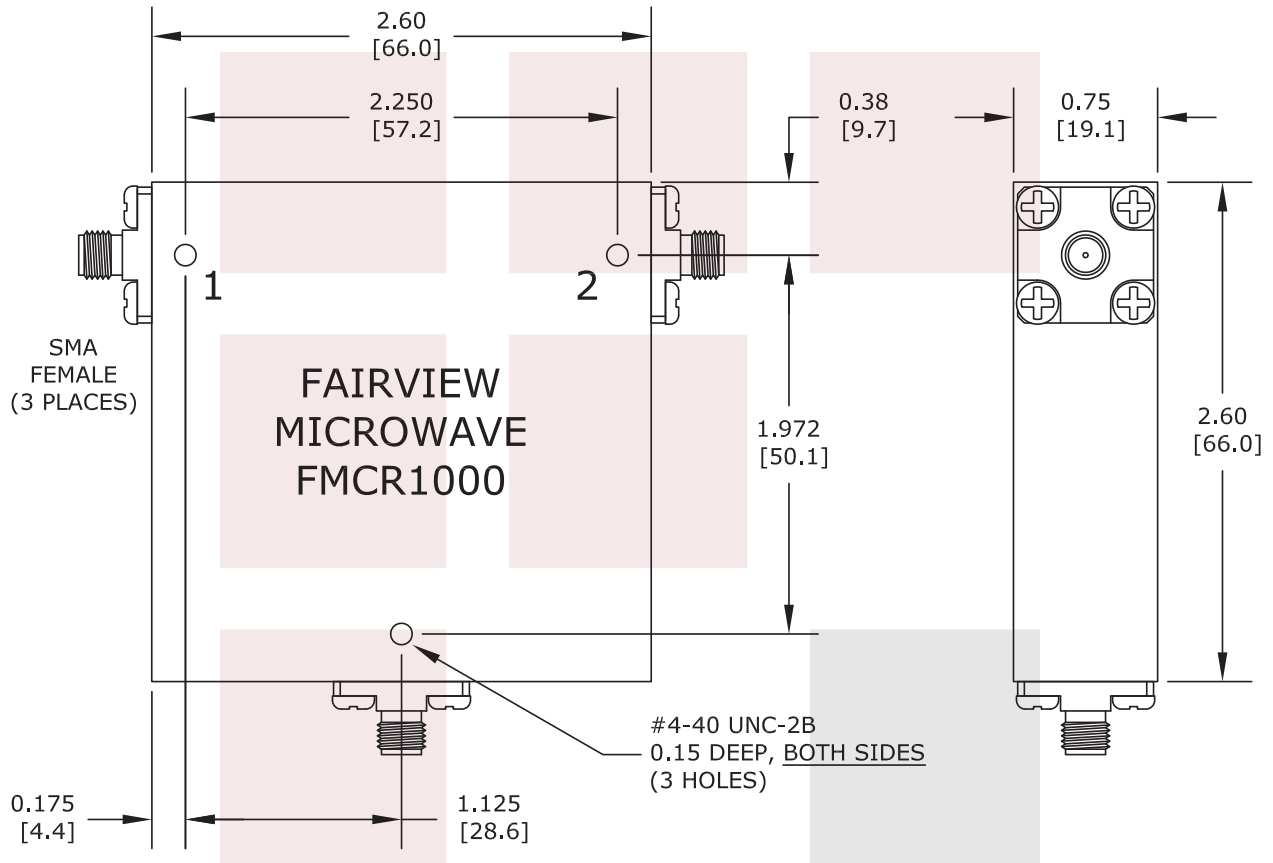


High Power Circulator SMA Female With 18 dB Isolation From 1 GHz to 2 GHz Rated to 50 Watts from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [High Power Circulator SMA Female With 18 dB Isolation From 1 GHz to 2 GHz Rated to 50 Watts FMCR1000](#)

URL: <https://www.fairviewmicrowave.com/sma-female-high-power-circulator-18db-isolation-2-ghz-50-watts-fmcr1000-p.aspx>

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TITLE High Power Circulator SMA Female With 18 dB Isolation From 1 GHz to 2 GHz Rated to 50 Watts		DWG NO FMCR1000		CAGE CODE 3FKR5	
CAD FILE	012216	SHEET	SCALE	N/A	SIZE A 2233