

**Dual Junction Circulator SMA Female With 32 dB Isolation From 8 GHz to 18 GHz Rated to 5 Watts**

The FMC1023 is a dual junction circulator offering 32 dB minimum isolation over a frequency band of 8 to 18 GHz. This coaxial part uses SMA female connectors on all ports and has a power rating of 5 watts in the forward and reverse direction.

Fairview offers a wide variety of circulators to fit your needs. These unique devices enable two signals to use a single channel. The classic use of a circulator (a three port device) is for the line/coax between the antenna and a transceiver, allowing the signal to come from the antenna to the receiver while the transmit signal goes from the transmitter to the antenna. As a dual junction device, this is essentially two circulators in one package and has four ports. This allows for roughly twice the isolation of a standard circulator. By terminating one of the four ports (using a 50 ohm load), it becomes a three port device and can be connected as a standard circulator. An isolator can be created by terminating another port, creating a two port device. These devices 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.



**Features:**

- High Isolation of 32 dB
- Frequency Range of 8 to 18 GHz
- Female SMA Connectors
- VSWR of 1.45:1
- Forward and Reverse Power of 5 watts

**Applications:**

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

**Electrical Specifications**

Description	Min	Typ	Max	Units
Frequency Range	8		18	GHz
Insertion Loss			1.4	dB
Isolation	32			dB
VSWR			1.45:1	
Forward Power, CW			5	Watts
Forward Power, Peak			30	Watts
Reverse Power, CW			5	Watts

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

**Mechanical Specifications**

<b>Size</b>	
Length	1 in [25.4 mm]
Width	0.56 in [14.22 mm]
Height	0.68 in [17.27 mm]

**Configuration**

Design	Dual Junction
Connector 1	SMA Female
Connector 2	SMA Female
Connector 3	SMA Female
Connector 4	SMA Female

**Environmental Specifications**

<b>Temperature</b>	
Operating Range	0 to +70 deg C

**Compliance Certifications** (visit [www.FairviewMicrowave.com](http://www.FairviewMicrowave.com) for current document)

RoHS Compliant	Yes
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REACH Compliant

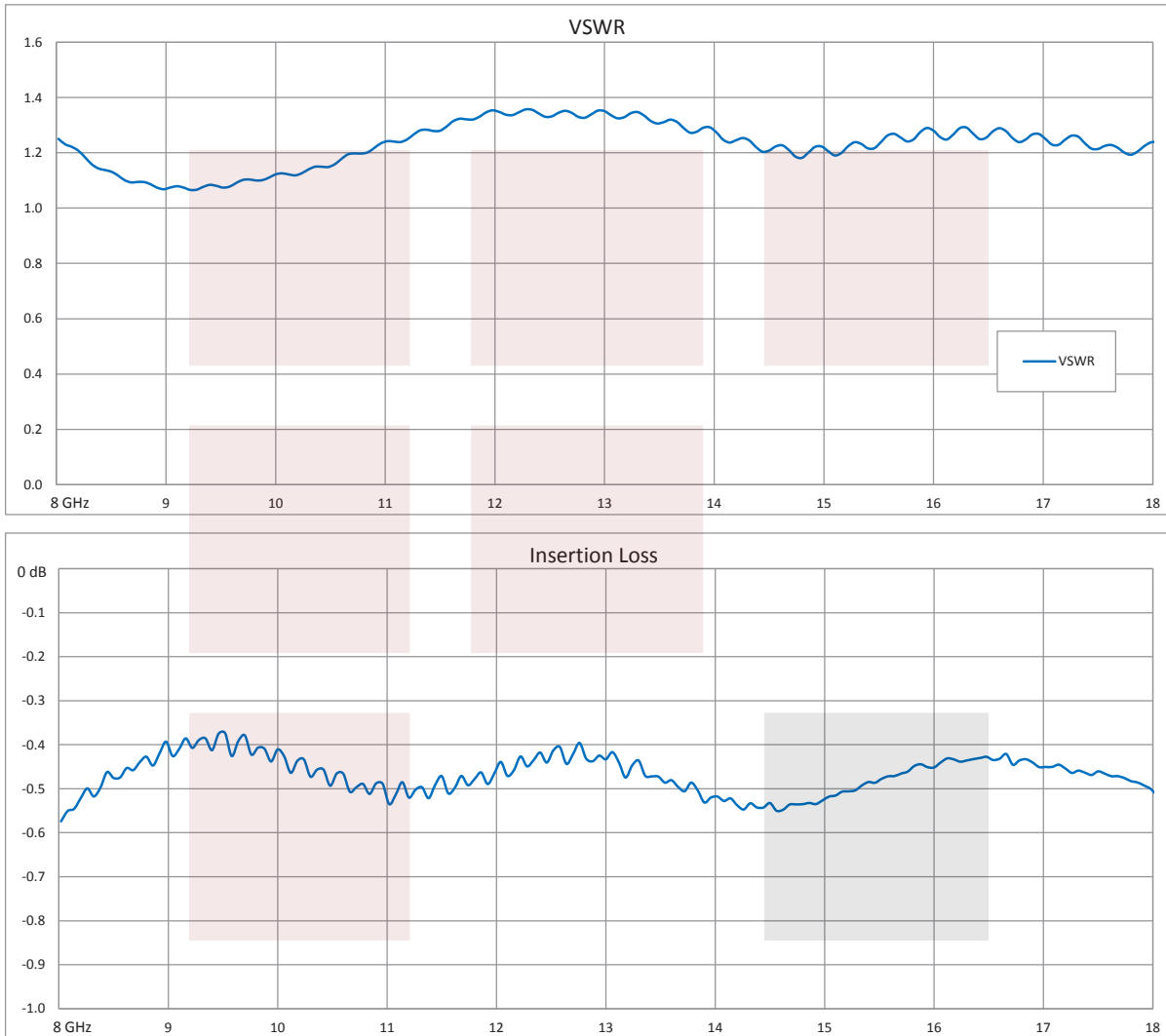
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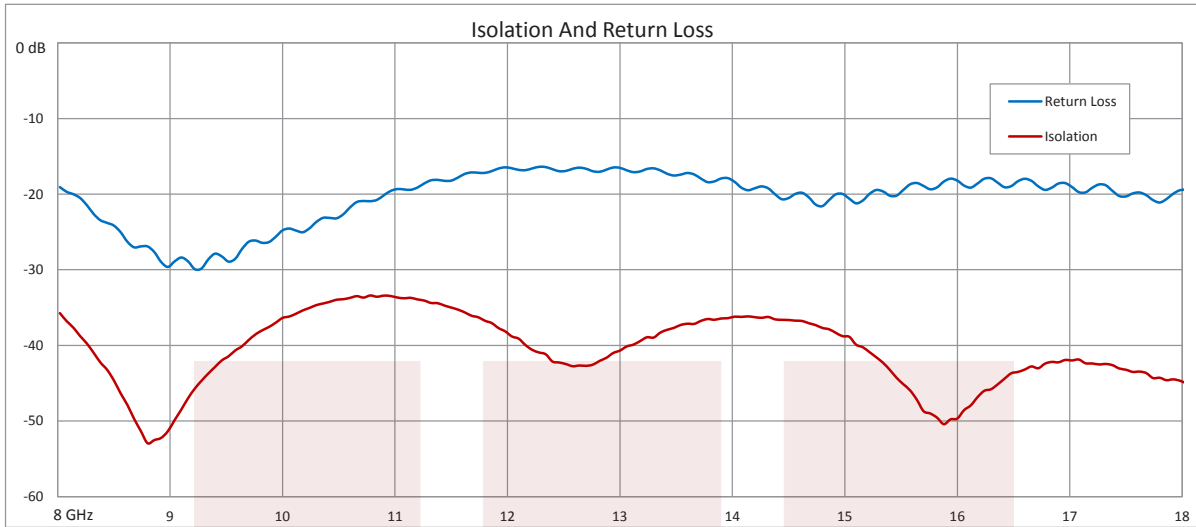
**Plotted and Other Data**

Notes:

- Values at 25°C, sea level.

**Typical Performance Data**



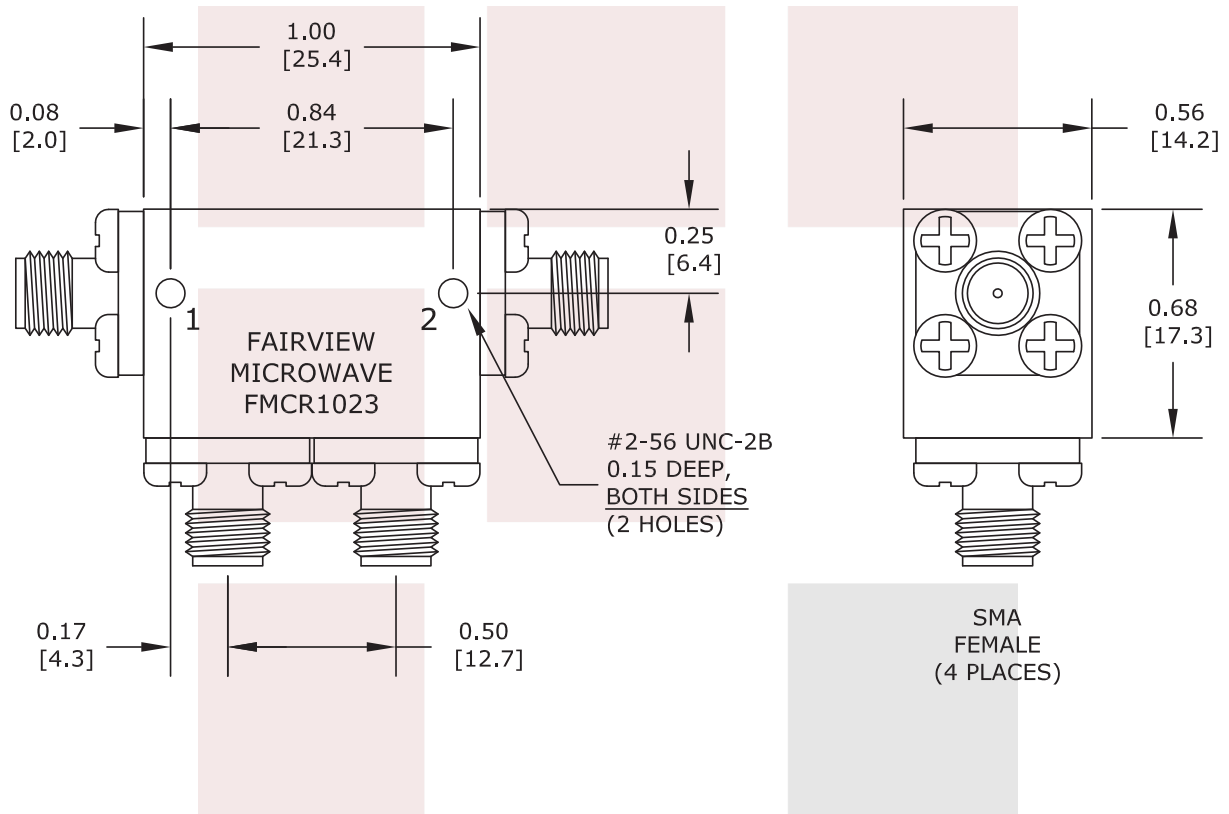


Dual Junction Circulator SMA Female With 32 dB Isolation From 8 GHz to 18 GHz Rated to 5 Watts from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [Dual Junction Circulator SMA Female With 32 dB Isolation From 8 GHz to 18 GHz Rated to 5 Watts FMCR1023](#)

URL: <http://www.fairviewmicrowave.com/sma-female-dual-junction-circulator-32db-isolation-18-ghz-5-watts-fmcr1023-p.aspx>

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TITLE Dual Junction Circulator SMA Female With 32 dB Isolation From 8 GHz to 18 GHz Rated to 5 Watts		DWG NO FMC1023		CAGE CODE 3FKR5	
CAD FILE	032516	SHEET	SCALE	N/A	SIZE A 2233