

Dual Junction Circulator N Female with 36 dB Isolation from 1.7 GHz to 2.2 GHz Rated to 50 Watts

The FMCR1016 is a dual junction circulator offering 36 dB minimum dual junction isolation over a frequency band of 1.7 to 2.2 GHz. This coaxial part uses N female connectors on all ports and has a power rating of 50 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.

Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	1.7		2.2	GHz
Insertion Loss			0.8	dB
Dual Junction Isolation (ports 2-1, 4-3)	36			dB
Single Junction Isolation (ports 1-4, 3-2)		15		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	5 in [127 mm]
Width	1.02 in [25.91 mm]
Height	2.5 in [63.5 mm]
Weight	1.8535 lbs [840.73 g]

Configuration

Design	Dual Junction
Package Style	Connectorized
Connector 1	N Female
Connector 2	N Female
Connector 3	N Female
Connector 4	N Female



Features:

- High Dual Junction Isolation of 36 dB
- Frequency Range of 1.7 to 2.2 GHz
- Female N Connectors
- VSWR of 1.25:1
- Forward and Reverse Power of 50 Watts

Applications:

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

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Environmental Specifications

Temperature

Operating Range 0 to +50 deg C

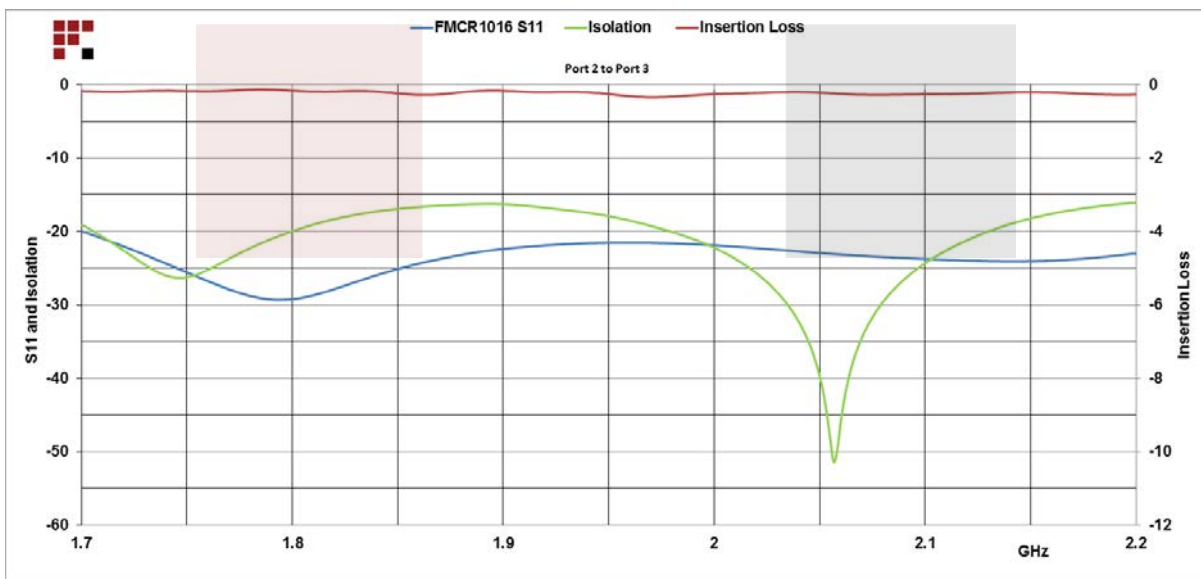
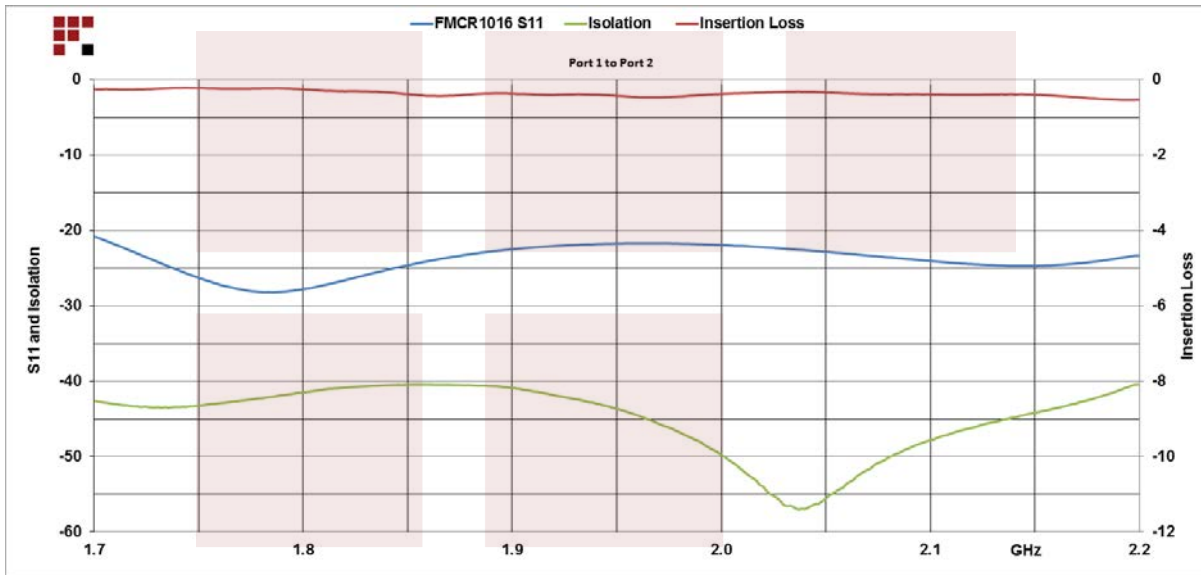
Compliance Certifications (see [product page](#) for current document)

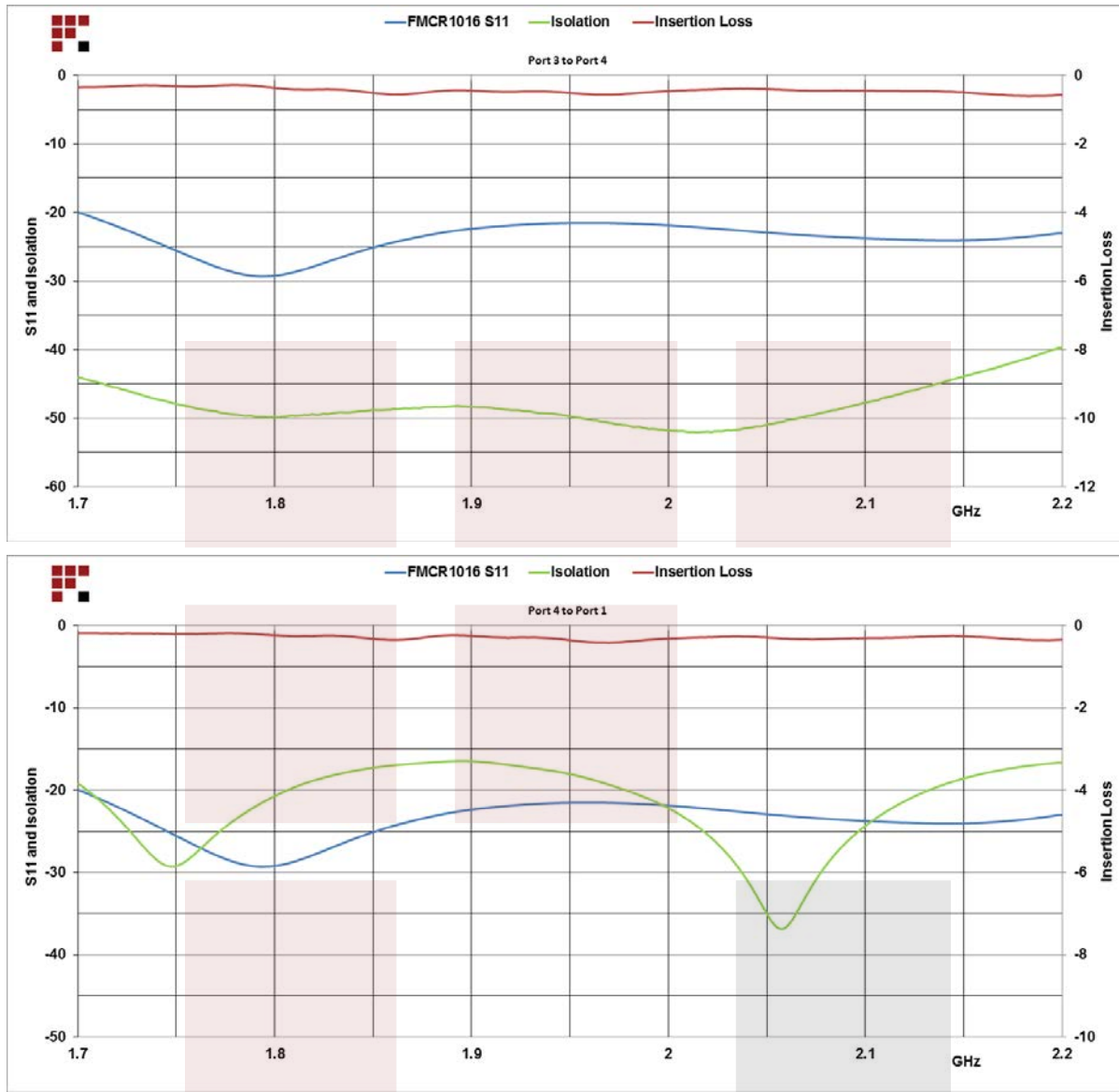
Plotted and Other Data

Notes:

- Values at 25°C, sea level.

Typical Performance Data



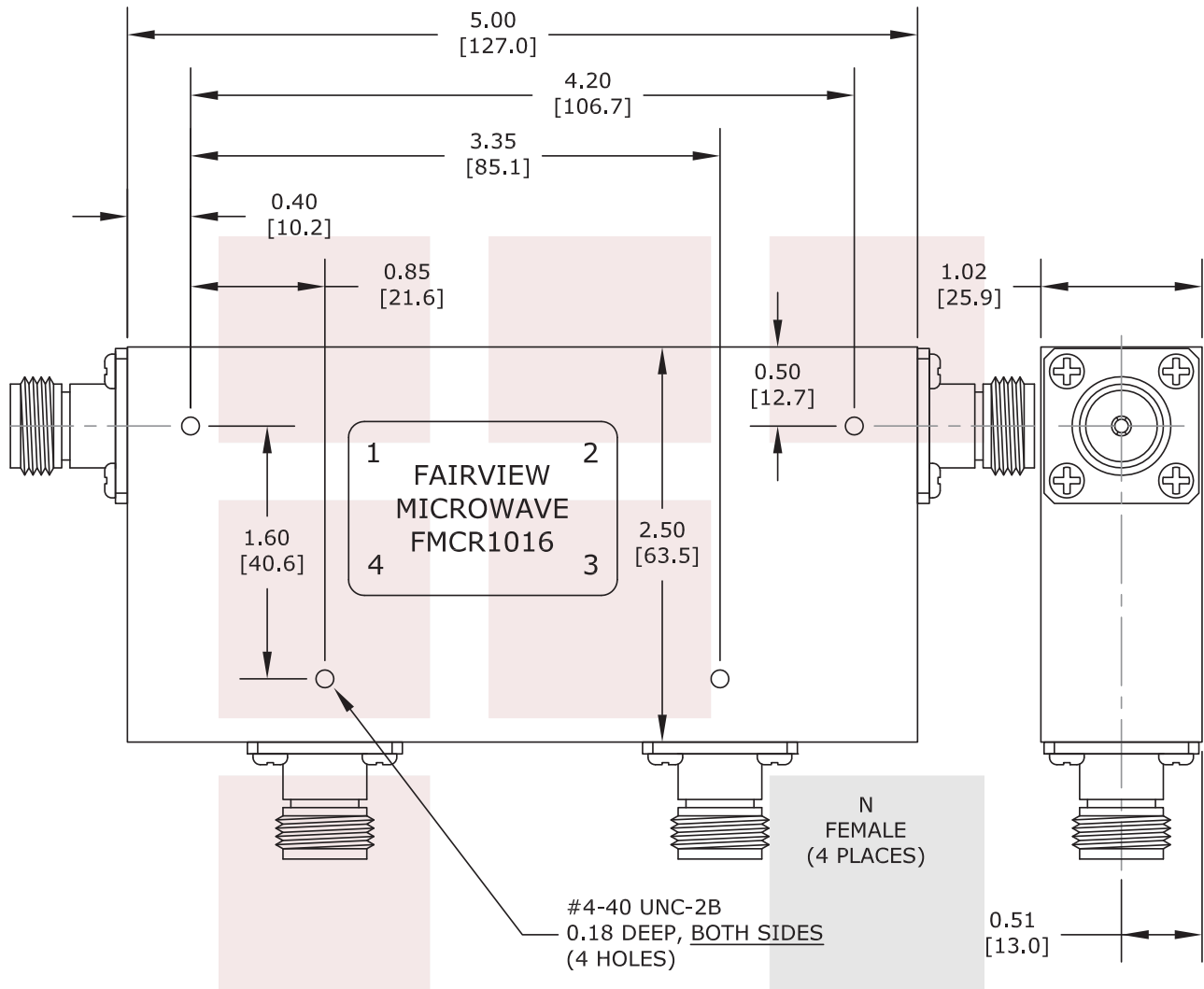


Dual Junction Circulator N Female with 36 dB Isolation from 1.7 GHz to 2.2 GHz Rated to 50 Watts from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [Dual Junction Circulator N Female with 36 dB Isolation from 1.7 GHz to 2.2 GHz Rated to 50 Watts FMCR1016](https://www.fairviewmicrowave.com/dual-junction-circulator-n-female-36db-isolation-2.2-ghz-50-watts-fmcr1016)

URL: <https://www.fairviewmicrowave.com/dual-junction-circulator-n-female-36db-isolation-2.2-ghz-50-watts-fmcr1016-p.aspx>

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UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ARE:

FRACTIONS	DECIMALS	ANGLES
± 1/64	.XX ± .03	± 1°
	.XXX ± .010	

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TITLE Dual Junction Circulator N Female with 36 dB Isolation from 1.7 GHz to 2.2 GHz Rated to 50 Watts		DWG NO FMCR1016		CAGE CODE 3FKR5	
CAD FILE	110216	SHEET	SCALE	N/A	SIZE A 2233