

Circulator 2.92mm Female with 12 dB Isolation from 18 GHz to 26.5 GHz Rated to 10 Watts

The FMCR1027 is an RF circulator offering a forward and reverse power rating of 10 watts over an operational frequency band of 18 to 26.5 GHz. This coaxial part uses 2.92mm female connectors on all ports and has a minimum of 12 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 circulator 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.



Features:

- Forward/Reverse Power 10 watts
- Wide-Band Operating Frequency Range of 18 to 26.5 GHz
- Female 2.92mm Connectors
- Low VSWR of 1.80:1 Max
- Low Insertion Loss of 1.7 dB
- Good Isolation Performance of 12 dB Minimum

Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	18		26.5	GHz
Impedance		50		Ohms
Insertion Loss			1.7	dB
Isolation	12			dB
VSWR			1.8:1	
Forward Power, CW			10	Watts

Applications:

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

Mechanical Specifications

Size

Length	0.99 in [25.15 mm]
Width	0.91 in [23.11 mm]
Height	0.66 in [16.76 mm]
Weight	0.066 lbs [29.94 g]
Body Material and Plating	Copper, Nickel

Configuration

Design	Single Junction
Direction	Counter-Clockwise
Connector 1	2.92mm Female
Connector 2	2.92mm Female
Connector 3	2.92mm Female

Environmental Specifications

Temperature

Operating Range	-40 to +80 deg C
Storage Range	-40 to +85 deg C

Humidity	100% RH at 35c
Shock	20G for 11msec
Vibration	25g RMS
Altitude	30,000 ft. (Epoxy Sealed Controlled environment)

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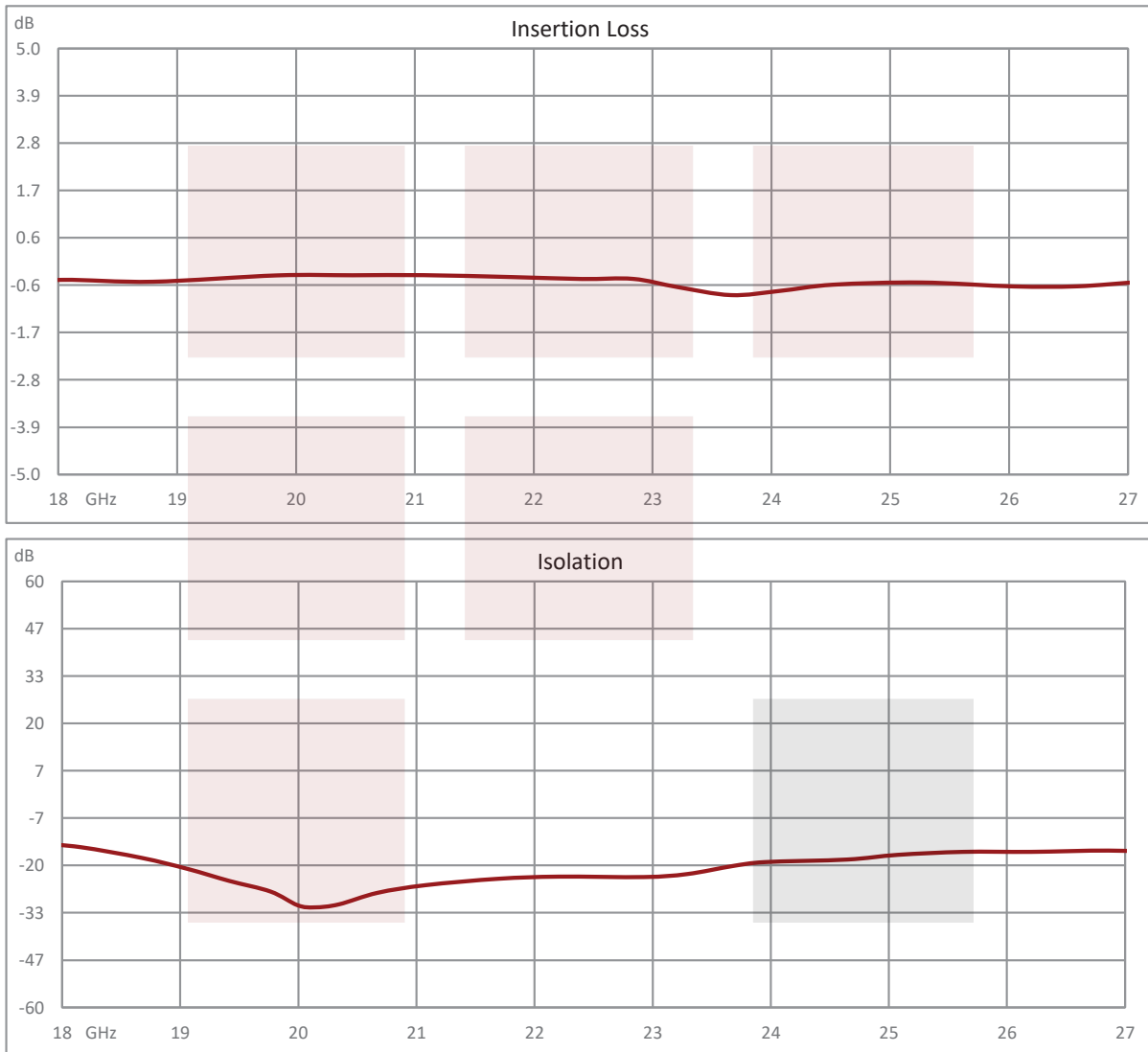
Compliance Certifications (see [product page](#) for current document)

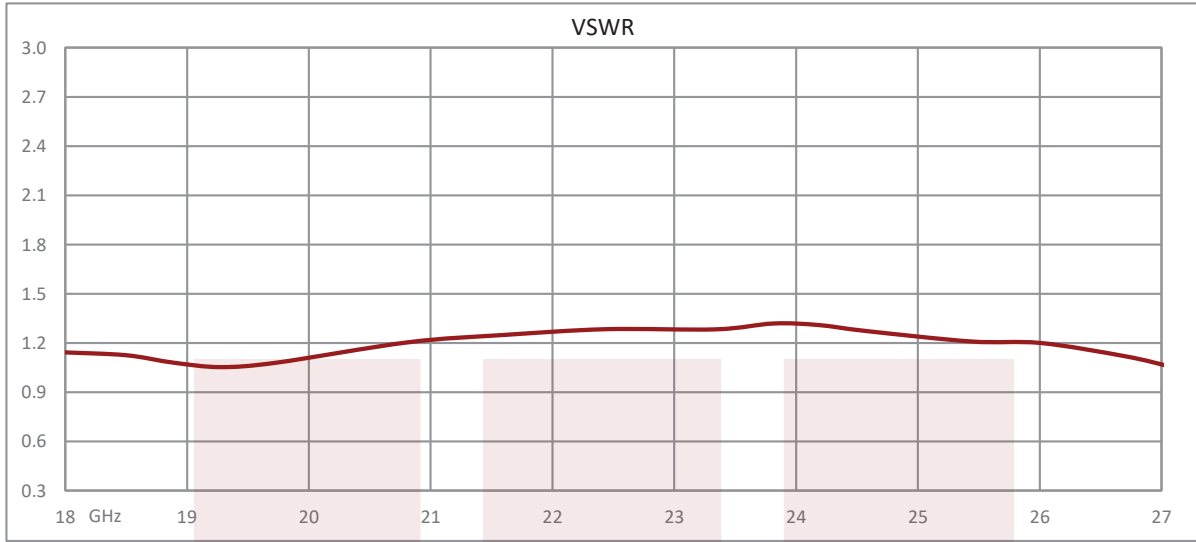
Plotted and Other Data

Notes:

- Values at 25°C, sea level.

Typical Performance Data





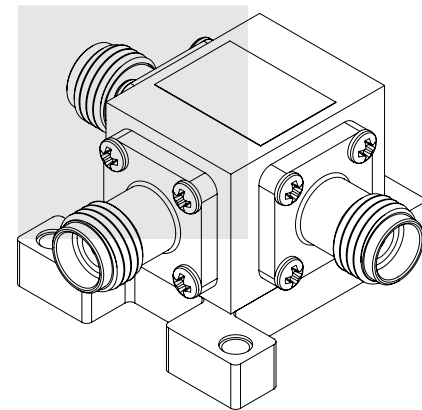
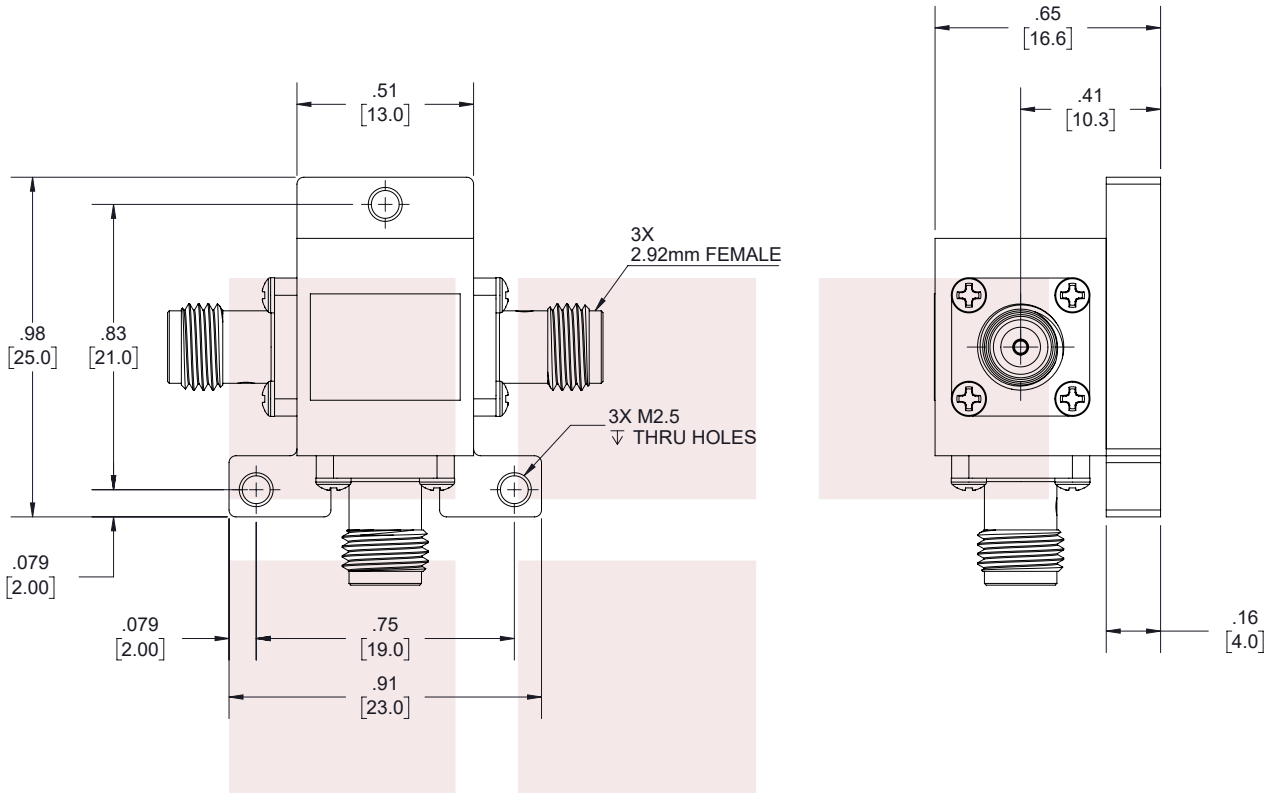
Circulator 2.92mm Female with 12 dB Isolation from 18 GHz to 26.5 GHz Rated to 10 Watts from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [Circulator 2.92mm Female with 12 dB Isolation from 18 GHz to 26.5 GHz Rated to 10 Watts FMCR1027](#)

URL: <https://www.fairviewmicrowave.com/circulator-2.92mm-female-12db-isolation-26.5-ghz-10-watts-fmcr1027-p.aspx>

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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	3/12/2020	S.PONG



LABEL

FAIRVIEW MICROWAVE	
FMCR1027	
2	D/C: WWYY 1
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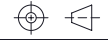
TITLE
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UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES
DIMENSIONS IN [] ARE MILLIMETERS

TOLERANCES: CABLE LENGTH (L) TOLERANCES:

.X = ±.2 [5.08]	FRACTIONS	L ≤ 12 [305] = +1 [25] / -0
.XX = ±.02 [.51]	± 1/32	12 [305] < L ≤ 60 [1524] = +2 [51] / -0
.XXX = ±.005 [.13]	ANGLES ± 1°	60 [1524] < L ≤ 120 [3048] = +4 [102] / -0
		120 [3048] < L ≤ 300 [7620] = +6 [152] / -0
		300 [7620] < L = +5%L / -0

THIRD-ANGLE PROJECTION



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SHEET 1 OF 1

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

SCALE N/A

SIZE A	CAGE CODE 3FKR5	DRAWN BY K.DANG	ITEM NO. FMCR1027	REV A
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T-Rev.D