

Circulator SMA Female With 17 dB Isolation From 4 GHz to 8 GHz Rated to 10 Watts

Fairview Microwave carries a broad selection of circulators to fit your needs. These unique devices allow two different direction signals to share the same channel. The classic use of this three port device is for routing signals between an antenna and a transceiver, allowing the receive signal to enter from the antenna (port 1) and exit to the receiver (port 2) while the transmit signal enters from the transmitter (port 3) and exits to the antenna (port 1). The circulator can also be used as an isolator by placing a matched load into one of the ports. These components can be used in antenna transmitting and receiving, radar, amplifier systems and any application 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.

The SFC4080B is a single junction circulator that operates from 4 to 8 GHz and can handle up to 10 Watts (CW) in the forward direction. The coaxial part uses SMA female connectors on all ports and has electrical specifications of 1.35:1 max VSWR, 17 dB min isolation and 0.75 dB max insertion loss. The package is RoHS compliant.



Features:

- Single Junction Circulator
- 4 to 8 GHz Frequency Range
- Max Forward Power 10W (CW)
- Insertion Loss < 0.75 dB
- VSWR < 1.35:1
- Isolation > 17 dB
- SMA Female Connectors

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	4		8	GHz
Impedance		50		Ohms
Insertion Loss			0.75	dB
Isolation	17			dB
VSWR			1.35:1	
Forward Power, CW			10	Watts

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

Mechanical Specifications

Size	
Length	0.87 in [22.1 mm]
Width	0.67 in [17.02 mm]
Height	0.98 in [24.89 mm]
Weight	0.1125 lbs [51.03 g]
Body Material and Plating	Aluminum

Configuration

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

Environmental Specifications

Temperature	
Operating Range	-25 to +80 deg C

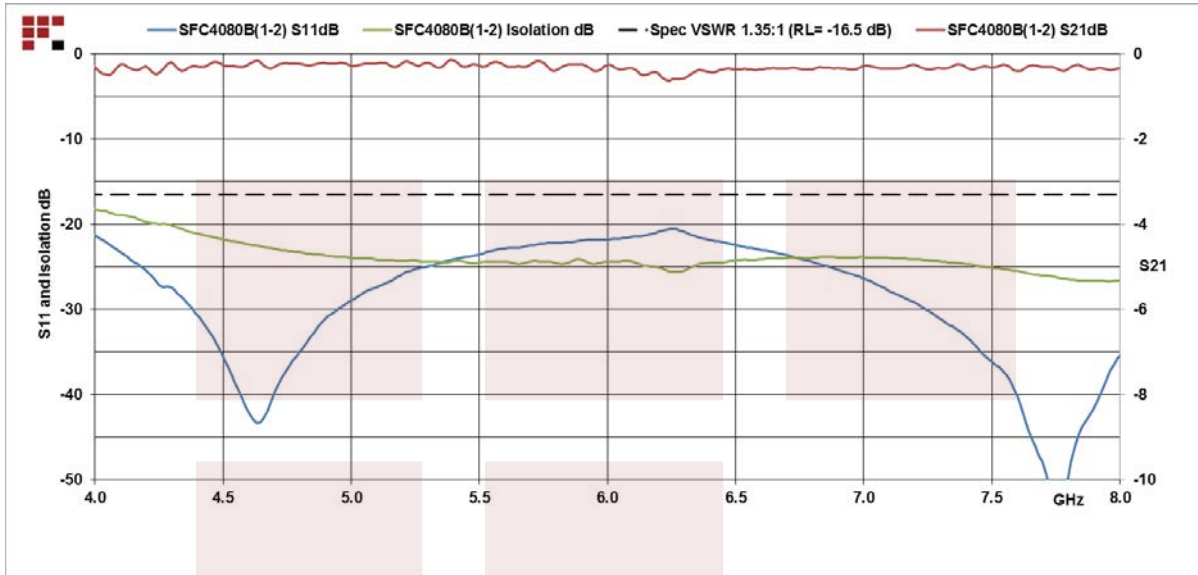
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Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:

Typical Performance Data



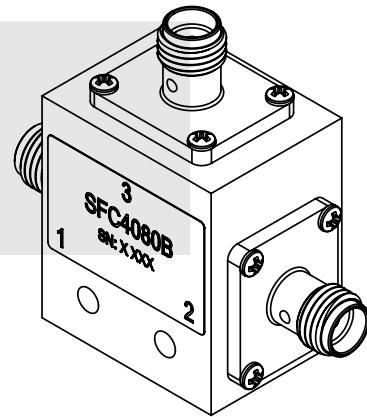
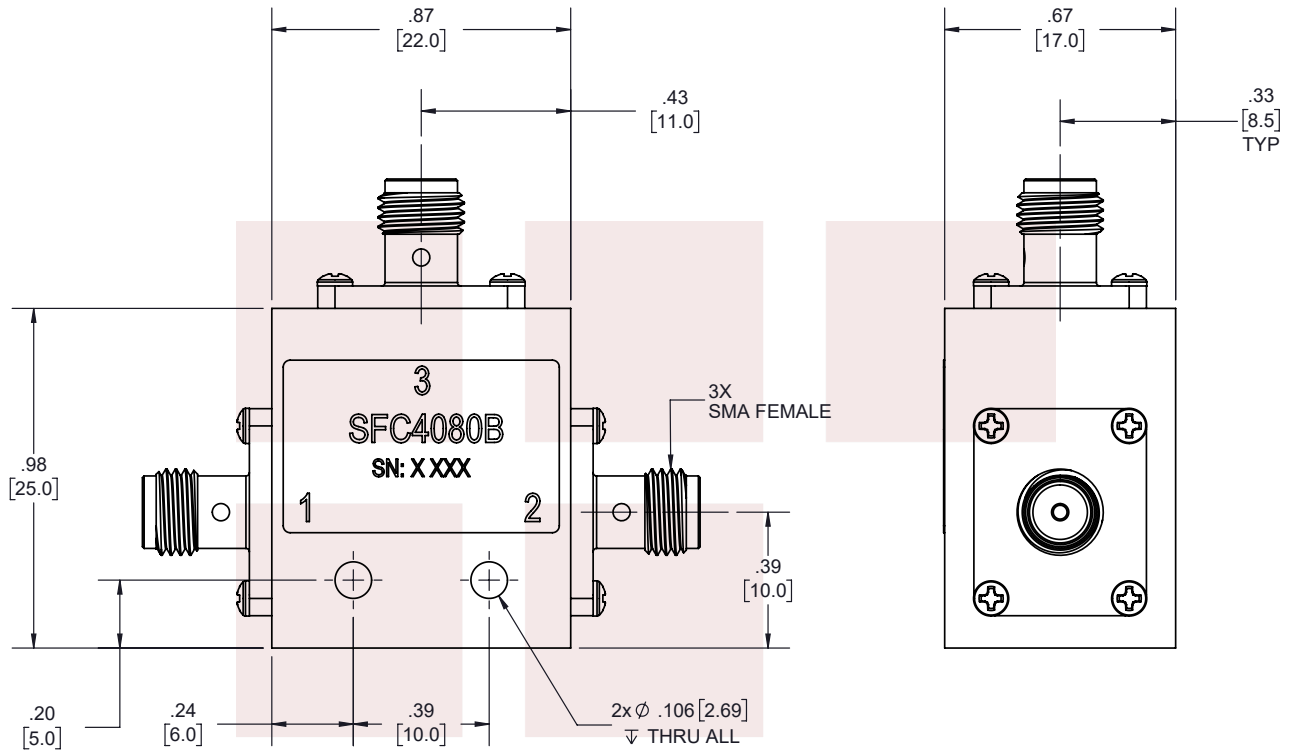
Circulator SMA Female With 17 dB Isolation From 4 GHz to 8 GHz Rated to 10 Watts from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [Circulator SMA Female With 17 dB Isolation From 4 GHz to 8 GHz Rated to 10 Watts SFC4080B](#)

URL: <https://www.fairviewmicrowave.com/sma-circulator-17-db-isolation-4-8-ghz-sfc4080b-p.aspx>

The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Fairview Microwave reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Fairview Microwave does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Fairview Microwave does not assume any liability arising out of the use of any part or documentation.

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	PCR SFC4080B	10/2/2020	T.GALLA



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TITLE
Circulator SMA Female With 17 dB Isolation From 4 GHz to 8 GHz Rated to 10 Watts

UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES
DIMENSIONS IN [] ARE MILLIMETERS

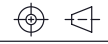
TOLERANCES:

.X = ±.2 [5.08] FRACTIONS ± 1/32
.XX = ±.02 [.51] ANGLES ± 1°
.XXX = ±.005 [.13]

CABLE LENGTH (L) TOLERANCES:

L ≤ 12 [305] = +1 [25] / -0
12 [305] < L ≤ 60 [1524] = +2 [51] / -0
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. SFC4080B	REV A
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T-Rev.D