

Circulator SMA Female With 18 dB Isolation From 7 GHz to 12.4 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 SFC0712 is a single junction circulator that operates from 7 to 12.4 GHz and can handle up to 10 Watts (CW) in the forward direction and 2 Watts (CW) in the reverse direction. The coaxial part uses SMA female connectors on all ports and has electrical specifications of 1.3:1 max VSWR, 18 dB min isolation and 0.75 dB max insertion loss. The package is RoHS compliant.



Features:

- Single Junction Circulator
- 7 to 12.4 GHz Frequency Range
- Max Forward Power 10W (CW)
- Max Reverse Power 2W (CW)
- Insertion Loss < 0.75 dB
- VSWR < 1.3:1
- Isolation > 18 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	7		12.4	GHz
Impedance		50		Ohms
Insertion Loss			0.75	dB
Isolation	18			dB
VSWR			1.3:1	
Forward Power, CW			10	Watts
Reverse Power, CW			2	Watts

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

Mechanical Specifications

Size	
Length	0.5 in [12.7 mm]
Width	0.5 in [12.7 mm]
Height	0.63 in [16 mm]
Weight	0.042 lbs [19.05 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	-20 to +60 deg C

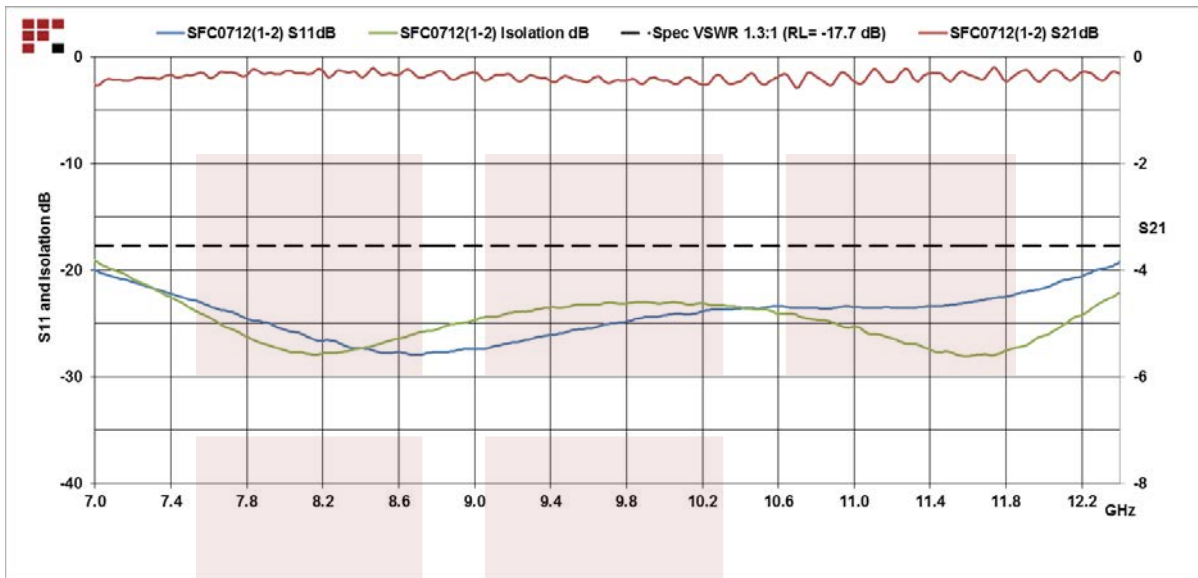
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Compliance Certifications (visit www.FairviewMicrowave.com for current document)
 RoHS Compliant Yes

Plotted and Other Data

Notes:

Typical Performance Data

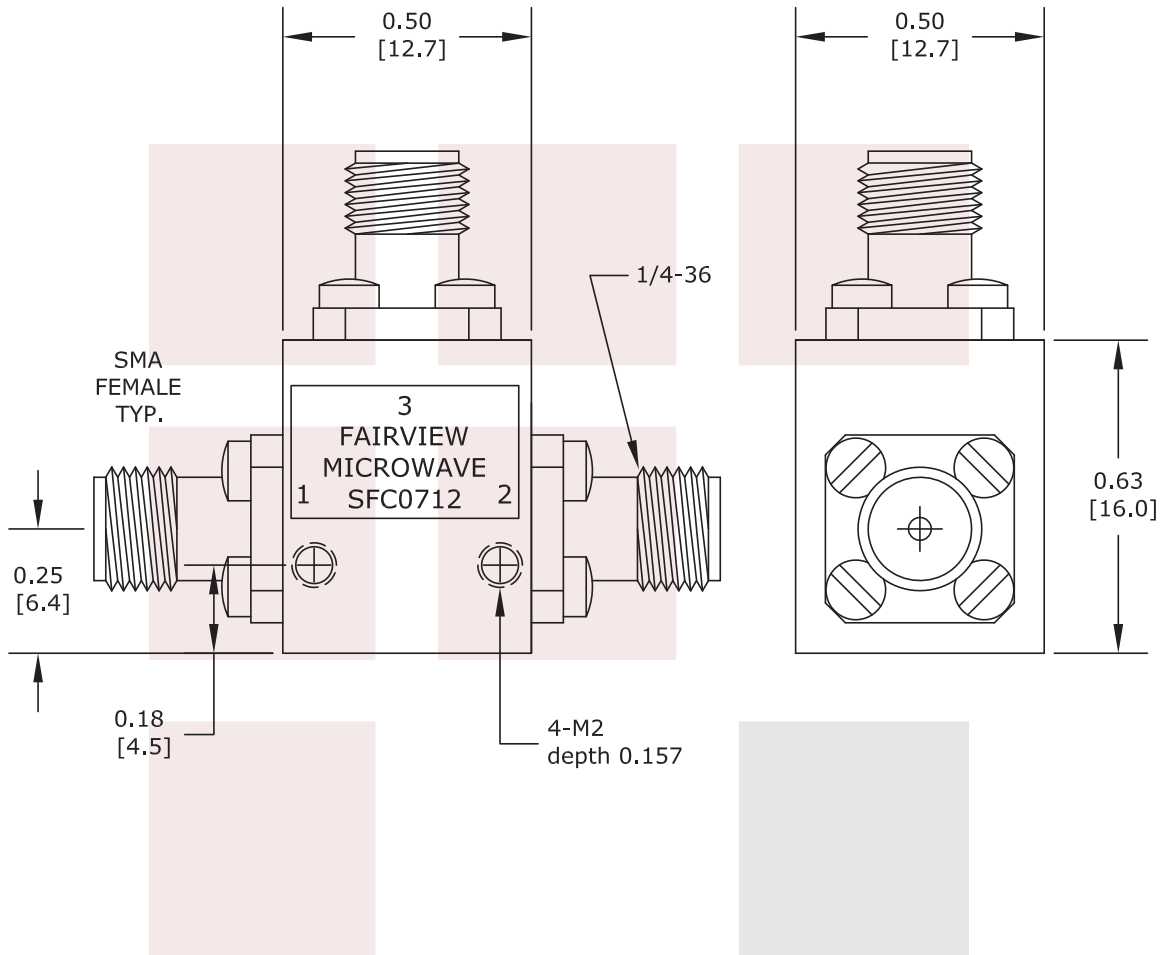


Circulator SMA Female With 18 dB Isolation From 7 GHz to 12.4 GHz Rated to 10 Watts from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [Circulator SMA Female With 18 dB Isolation From 7 GHz to 12.4 GHz Rated to 10 Watts SFC0712](#)

URL: <http://www.fairviewmicrowave.com/sma-circulator-18-db-isolation-7-12.4-ghz-sfc0712-p.aspx>

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STANDARD TOLERANCES	
.XX	±0.03
.XXX	±0.001

*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

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TITLE Circulator SMA Female With 18 dB Isolation From 7 GHz to 12.4 GHz Rated to 10 Watts		DWG NO SFC0712		CAGE CODE 3FKR5	
CAD FILE	041316	SHEET	SCALE	N/A	SIZE A 3045