

High Power Circulator N Female With 20 dB Isolation From 135 MHz to 175 MHz Rated to 150 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 SFC1317N is a high power single junction circulator that operates from 135 to 175 MHz and can handle up to 150 Watts (CW) in the forward direction and 100 Watts (CW) in the reverse direction. The coaxial part uses N female connectors on all ports and has electrical specifications of 1.3:1 max VSWR, 20 dB min isolation and 0.5 dB max insertion loss. The package is REACH and RoHS certified.



Features:

- High Power Single Junction Circulator
- 135 to 175 MHz Frequency Range
- Max Forward Power 150W (CW)
- Max Reverse Power 100W (CW)
- Insertion Loss < 0.5 dB
- VSWR < 1.3:1
- Isolation > 20 dB
- N Female Connectors

Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	135		175	MHz
Impedance		50		Ohms
Insertion Loss			0.5	dB
Isolation	20			dB
VSWR			1.3:1	
Forward Power, CW			150	Watts
Reverse Power, CW			100	Watts

Electrical Specification Notes:

Values at 25°C, sea level.

Minimum isolation of 16.5 dB from -10°C to -30°C, and 17 dB from +60°C to +70°C.

Maximum insertion loss of 0.7 dB from -10°C to -30°C.

Mechanical Specifications

Size

Length	3 in [76.2 mm]
Width	3 in [76.2 mm]
Height	1.2 in [30.48 mm]
Weight	1.344 lbs [609.63 g]

Configuration

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

Environmental Specifications

Temperature

Operating Range	-30 to +70 deg C
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Applications:

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

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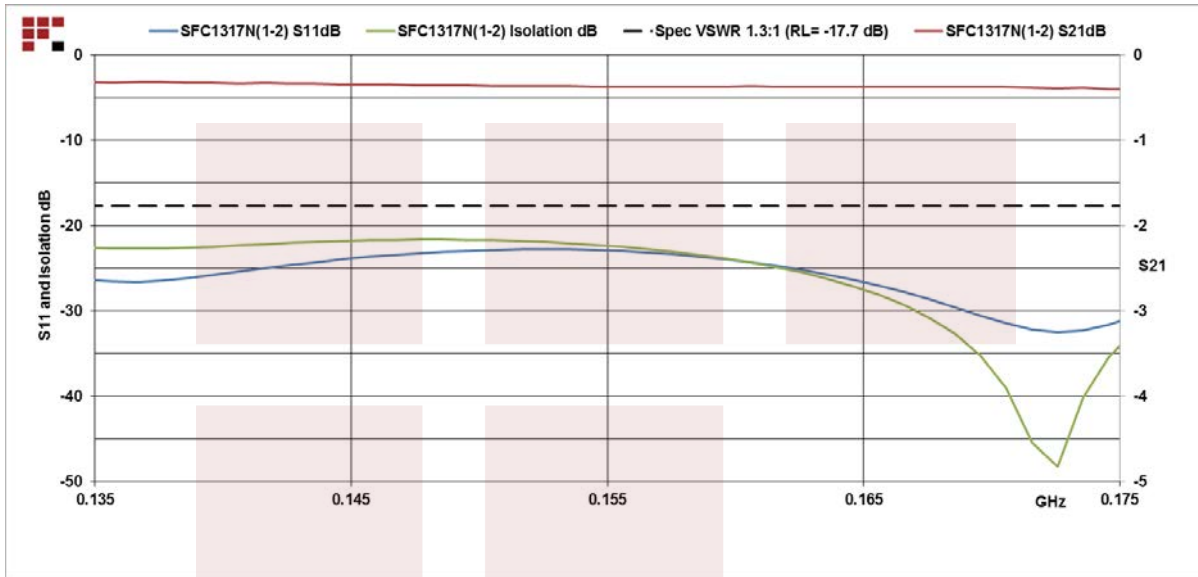
Compliance Certifications (visit www.FairviewMicrowave.com for current document)

RoHS Compliant Yes
 REACH Compliant 12/17/2015

Plotted and Other Data

Notes:

Typical Performance Data

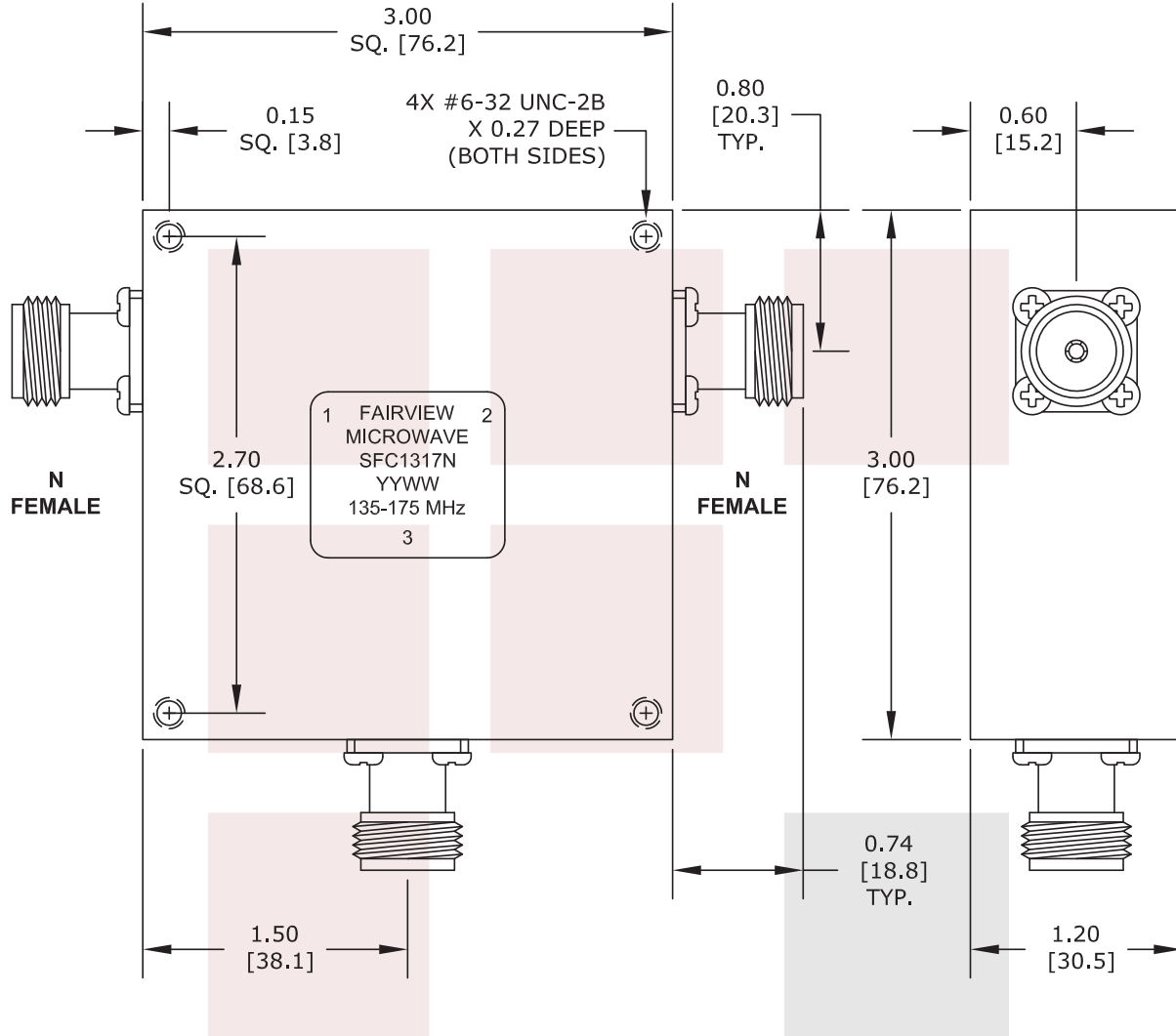


High Power Circulator N Female With 20 dB Isolation From 135 MHz to 175 MHz Rated to 150 Watts from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [High Power Circulator N Female With 20 dB Isolation From 135 MHz to 175 MHz Rated to 150 Watts SFC1317N](http://www.fairviewmicrowave.com/n-circulator-20-db-isolation-135-175-mhz-150-watts-sfc1317n-p.aspx)

URL: <http://www.fairviewmicrowave.com/n-circulator-20-db-isolation-135-175-mhz-150-watts-sfc1317n-p.aspx>

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STANDARD TOLERANCES	
.XX	±0.01
.XXX	±0.005

*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

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TITLE High Power Circulator N Female With 20 dB Isolation From 135 MHz to 175 MHz Rated to 150 Watts		DWG NO SFC1317N		CAGE CODE 3FKR5	
CAD FILE	041316	SHEET	SCALE	N/A	SIZE A 3045