

**High Power Circulator N Female With 20 dB Isolation  
 From 380 MHz to 460 MHz Rated to 1000 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 SFC3846N is a high power single junction circulator that operates from 380 to 460 MHz and can handle up to 1,000 Watts (CW) in the forward and 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 0.35 dB max insertion loss. The package is REACH and RoHS certified.



**Features:**

- High Power Single Junction Circulator
- 380 to 460 MHz Frequency Range
- Max Forward and Reverse Power 1,000W (CW)
- Insertion Loss < 0.35 dB
- VSWR < 1.3:1
- Isolation > 20 dB
- N Female Connectors

**Electrical Specifications**

Description	Min	Typ	Max	Units
Frequency Range	380		460	MHz
Impedance		50		Ohms
Insertion Loss			0.35	dB
Isolation	20			dB
VSWR			1.3:1	
Forward Power, CW			1	KWatts
Reverse Power, CW			1	KWatts

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

**Mechanical Specifications**

<b>Size</b>	
Length	2.5 in [63.5 mm]
Width	2.5 in [63.5 mm]
Height	1.02 in [25.91 mm]
Weight	1.13 lbs [512.56 g]

**Configuration**

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

**Environmental Specifications**

<b>Temperature</b>	
Operating Range	-20 to +70 deg C

**Compliance Certifications** (visit [www.FairviewMicrowave.com](http://www.FairviewMicrowave.com) for current document)

RoHS Compliant	Yes
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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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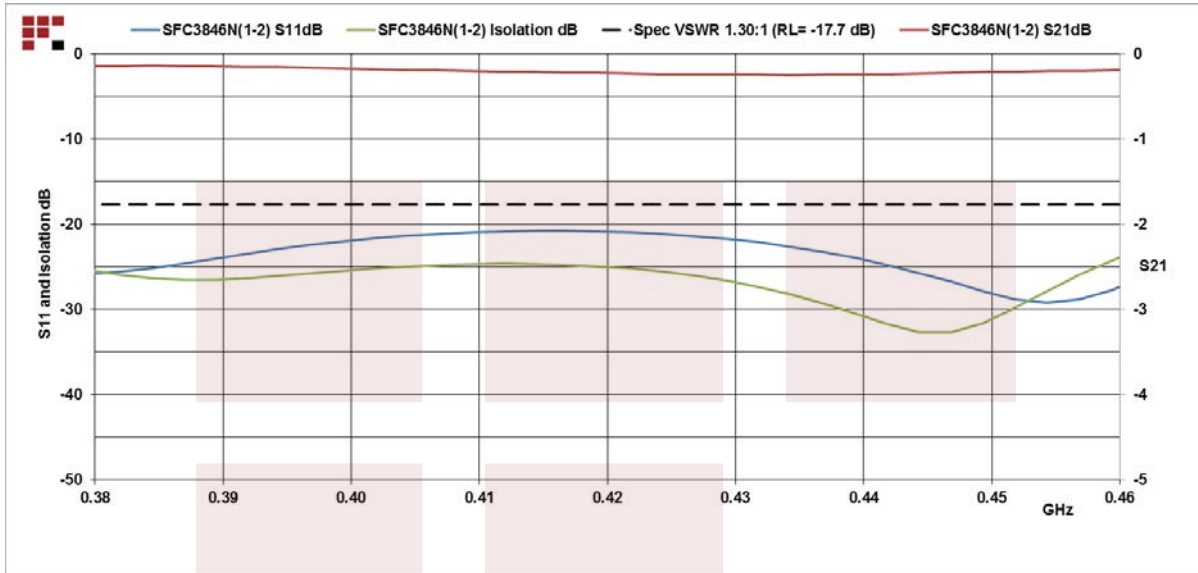
REACH Compliant

12/17/2015

**Plotted and Other Data**

Notes:

**Typical Performance Data**

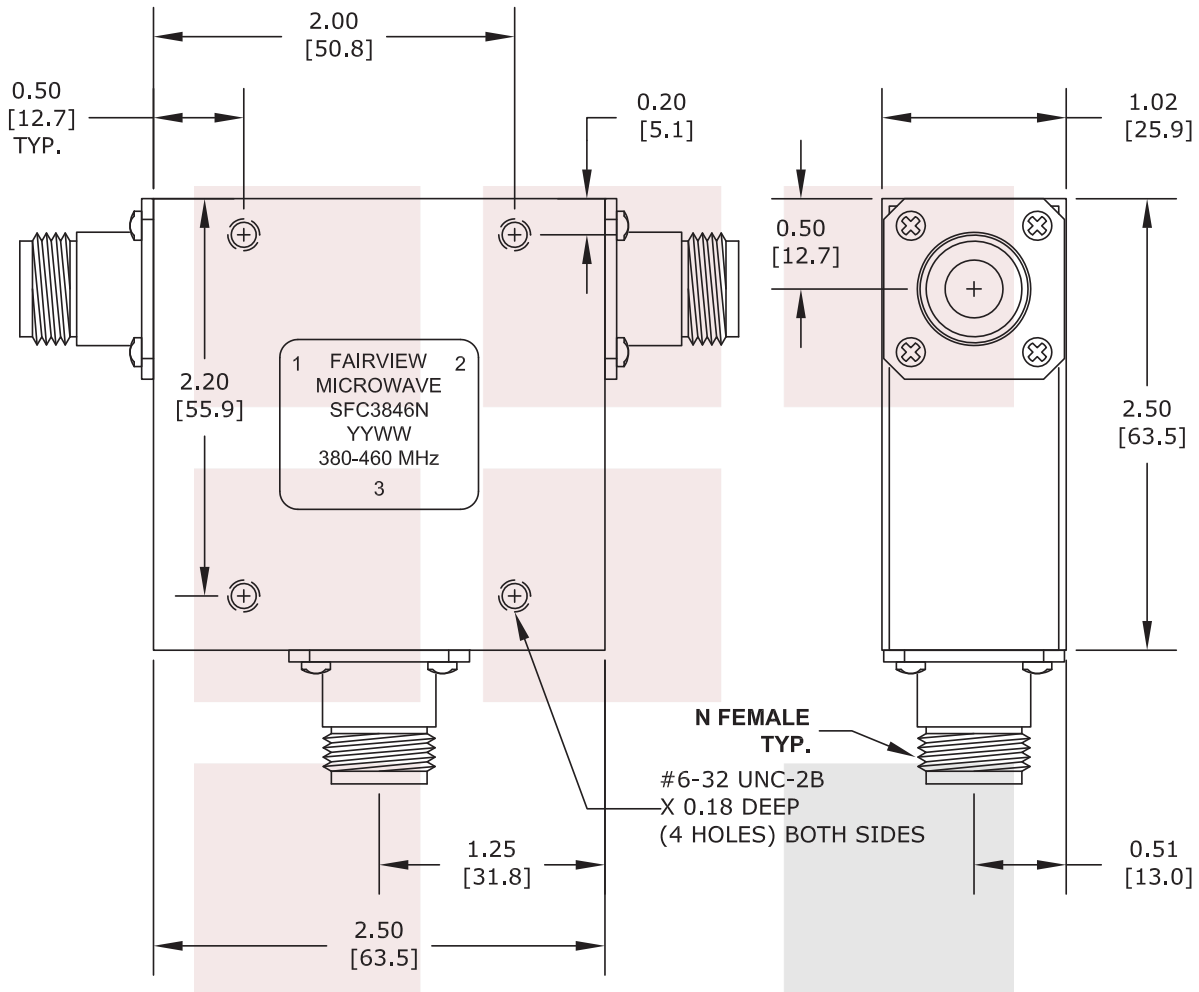


High Power Circulator N Female With 20 dB Isolation From 380 MHz to 460 MHz Rated to 1000 Watts from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave 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 380 MHz to 460 MHz Rated to 1000 Watts SFC3846N](#)

URL: <http://www.fairviewmicrowave.com/n-circulator-20-db-isolation-380-460-mhz-1000-watts-sfc3846n-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.



**STANDARD TOLERANCES**

.XX ±0.1  
.XXX ±0.05

\*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

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TITLE High Power Circulator N Female With 20 dB Isolation From 380 MHz to 460 MHz Rated to 1000 Watts		DWG NO SFC3846N		CAGE CODE 3FKR5	
CAD FILE	041316	SHEET	SCALE	N/A	SIZE A 3045