

High Power Circulator SMA Female With 20 dB Isolation From 450 MHz to 520 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 SFC4552S is a high power single junction circulator that operates from 450 to 520 MHz and can handle up to 150 Watts (CW) in the forward direction and 70 Watts (CW) in the reverse direction. The coaxial part uses SMA female connectors on all ports and has electrical specifications of 1.25:1 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
- 450 to 520 MHz Frequency Range
- Max Forward Power 150W (CW)
- Max Reverse Power 70W (CW)
- Insertion Loss < 0.5 dB
- VSWR < 1.25:1
- Isolation > 20 dB
- SMA Female Connectors

Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	450		520	MHz
Impedance		50		Ohms
Insertion Loss			0.5	dB
Isolation	20			dB
VSWR			1.25:1	
Forward Power, CW			150	Watts
Reverse Power, CW			70	Watts

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

Mechanical Specifications

Size	
Length	3 in [76.2 mm]
Width	3 in [76.2 mm]
Height	1.2 in [30.48 mm]
Weight	1.6 lbs [725.75 g]

Configuration

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

Environmental Specifications

Temperature	
Operating Range	-30 to +70 deg C

Compliance Certifications (visit 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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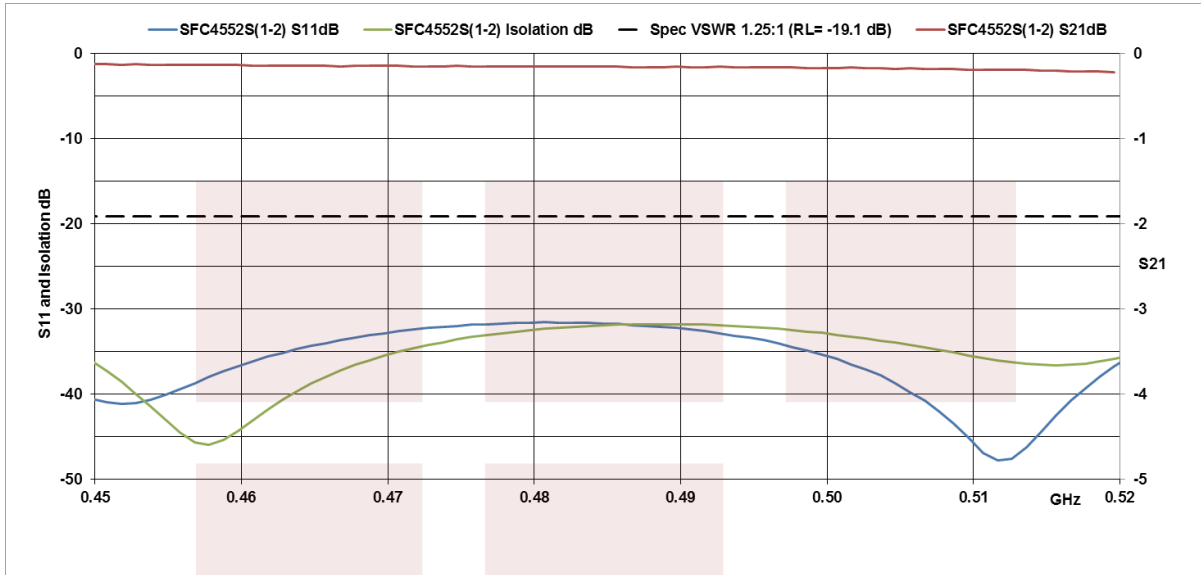
REACH Compliant

12/17/2015

Plotted and Other Data

Notes:

Typical Performance Data

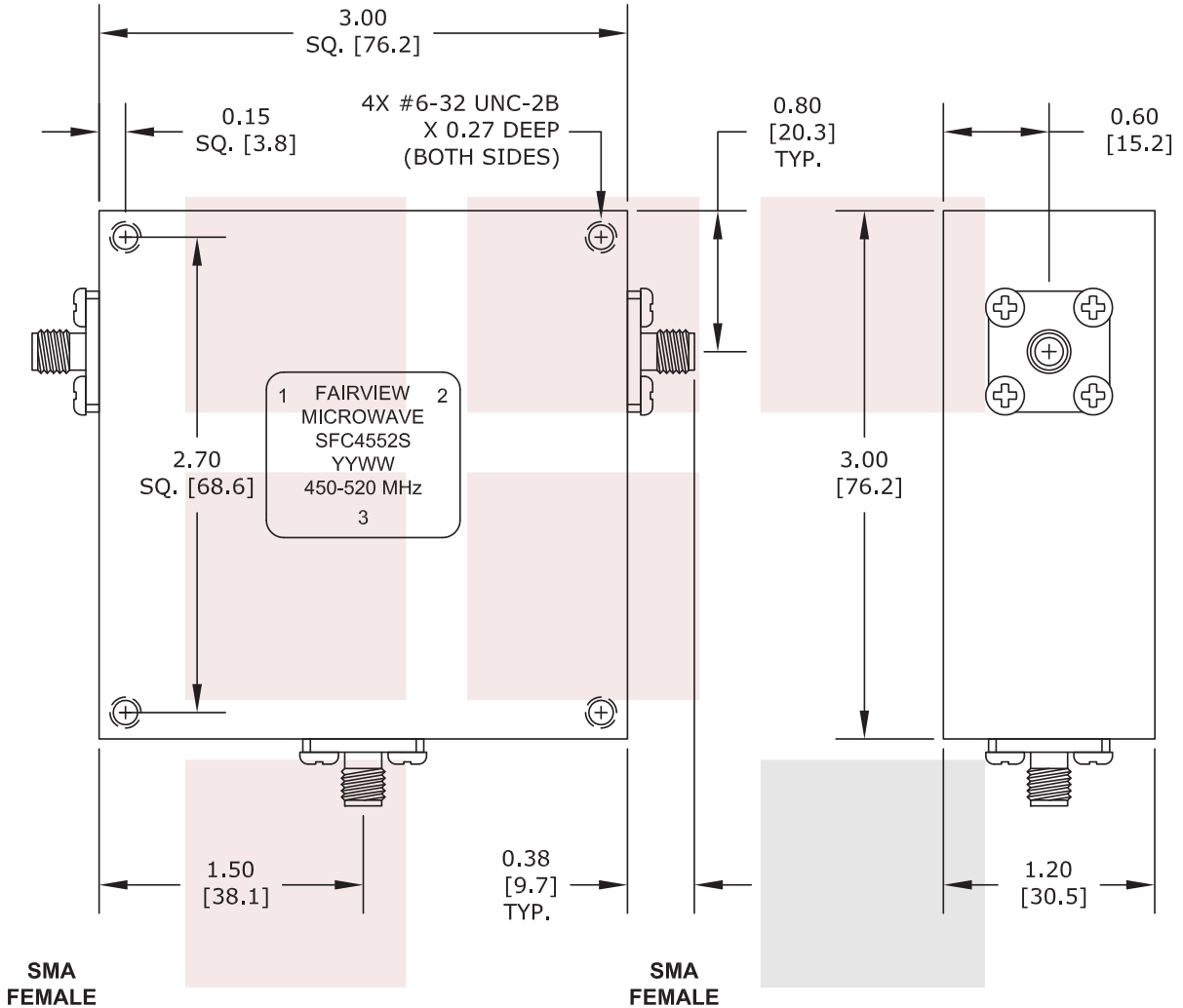


High Power Circulator SMA Female With 20 dB Isolation From 450 MHz to 520 MHz Rated to 150 Watts from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [High Power Circulator SMA Female With 20 dB Isolation From 450 MHz to 520 MHz Rated to 150 Watts SFC4552S](#)

URL: <http://www.fairviewmicrowave.com/sma-circulator-20-db-isolation-450-520-mhz-150-watts-sfc4552s-p.aspx>

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SMA FEMALE

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STANDARD TOLERANCES	
.XX	±0.01
.XXX	±0.005

*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

FAIRVIEW MICROWAVE INC. ALLEN, TX 75013 WWW.FAIRVIEWMICROWAVE.COM		NOTES: 1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL. 2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME. 3. DIMENSIONS ARE IN INCHES [mm].			
TITLE High Power Circulator SMA Female With 20 dB Isolation From 450 MHz to 520 MHz Rated to 150 Watts		DWG NO SFC4552S		CAGE CODE 3FKR5	
CAD FILE	041416	SHEET	SCALE	N/A	SIZE A 3045