

## Isolator SMA Female With 20 dB Isolation From 17.3 GHz to 22 GHz Rated to 10 Watts

The SFI1822 is a single junction isolator offering a forward power rating of 10 Watts CW and reverse power rating of 2 Watts CW over an operational frequency band of 17.3 to 22 GHz. This coaxial isolator uses SMA female connectors on all ports and has a minimum of 20 dB isolation.

Fairview Microwave offers a wide variety of isolators to fit your needs. These are two-port devices that transmit microwave or radio frequency power in one direction only and block the signal in the opposite direction. They can be thought of as a diode for RF energy. Isolators are used to isolate equipment from the effects of conditions outside of the equipment. For instance they are used to prevent a microwave source being detuned by a mismatched load. Fairview Microwave's isolators feature excellent insertion loss, high isolation and reliability.

### Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	17.3		22	GHz
Impedance		50		Ohms
Insertion Loss			0.9	dB
Isolation	20			dB
VSWR			1.25:1	
Forward Power, CW			10	Watts
Forward Power, Peak			30	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	0.7 in [17.78 mm]
Height	0.5 in [12.7 mm]
Weight	0.0455 lbs [20.64 g]

#### Configuration

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

### Environmental Specifications

#### Temperature

Operating Range	-20 to +65 deg C
-----------------	------------------

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

### Plotted and Other Data

Notes:



### Features:

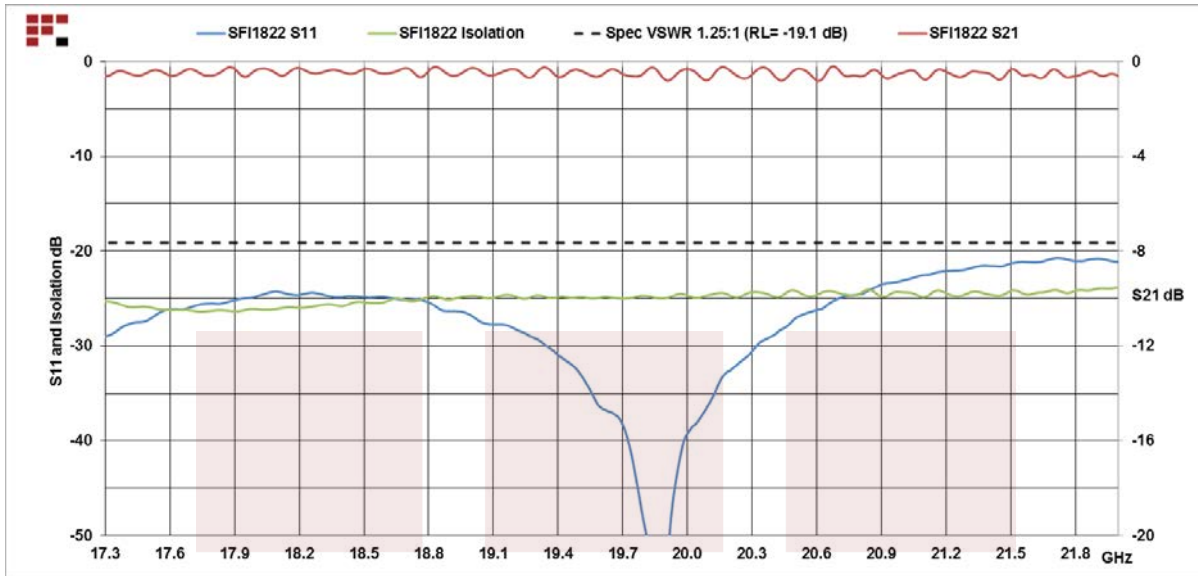
- 17.3 to 22 GHz Frequency Range
- Max Forward Power 10 Watts CW
- Max Reverse Power 2 Watts CW
- Insertion Loss < 0.9 dB
- VSWR < 1.25:1
- Isolation > 20 dB
- SMA Female Connectors

### Applications:

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

Fairview Microwave  
 1130 Junction Dr. #100  
 Allen, TX 75013  
 Tel: 1-800-715-4396 / (972) 649-6678  
 Fax: (972) 649-6689  
[www.fairviewmicrowave.com](http://www.fairviewmicrowave.com)  
[sales@fairviewmicrowave.com](mailto:sales@fairviewmicrowave.com)

**Typical Performance Data**

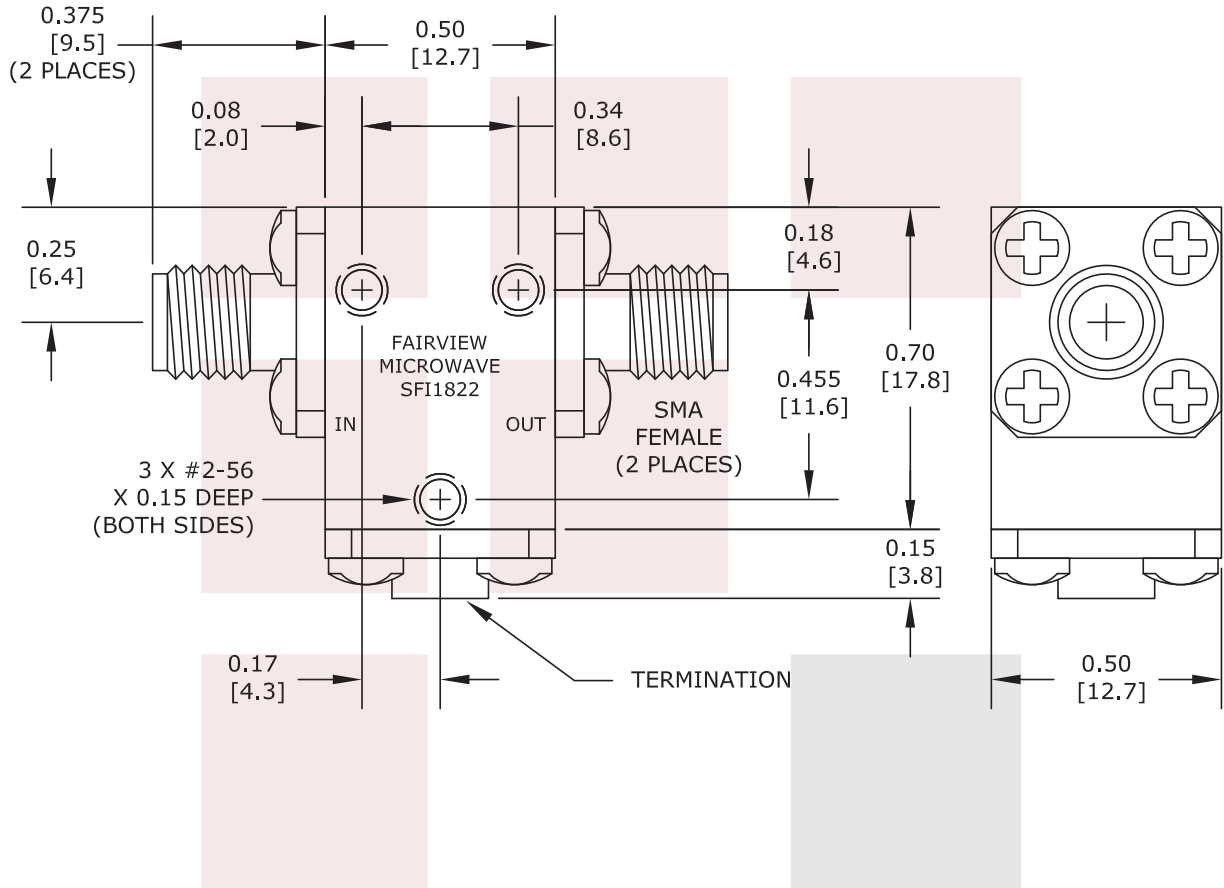


Isolator SMA Female With 20 dB Isolation From 17.3 GHz to 22 GHz Rated to 10 Watts from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [Isolator SMA Female With 20 dB Isolation From 17.3 GHz to 22 GHz Rated to 10 Watts SFI1822](https://www.fairviewmicrowave.com/sma-isolator-20-db-isolation-17.3-22-ghz-10-watts-sfi1822-p.aspx)

URL: <https://www.fairviewmicrowave.com/sma-isolator-20-db-isolation-17.3-22-ghz-10-watts-sfi1822-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	
.X	±0.2
.XX	±0.1
.XXX	±0.05

\*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  
 Isolator SMA Female With 20 dB Isolation From 17.3 GHz to 22 GHz Rated to 10 Watts

DWG NO	SFI1822	CAGE CODE	3FKR5		
CAD FILE	072916	SHEET	SCALE	N/A	SIZE A 2233