

Isolator SMA Female with 20 dB Isolation from 12 GHz to 18 GHz Rated to 10 Watts

The FMIR1028 is an RF isolator offering a forward power rating of 10 watts over an operational frequency band of 12 to 18 GHz. This coaxial part uses SMA female connectors on all ports and has a minimum of 20 dB of 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's isolators feature excellent insertion loss, high isolation and reliability.

Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	12		18	GHz
Impedance		50		Ohms
Insertion Loss			0.5	dB
Isolation	20			dB
VSWR			1.35:1	
Forward Power, CW			10	Watts

Mechanical Specifications

Size	
Length	1.22 in [30.99 mm]
Width	0.47 in [11.94 mm]
Height	0.67 in [17.02 mm]
Weight	0.021 lbs [9.53 g]
Body Material and Plating	Aluminum, Nickel

Configuration

Direction	Clockwise
Connector 1	SMA Female
Connector 2	SMA Female

Environmental Specifications

Temperature

Operating Range	-20 to +70 deg C
Storage Range	-40 to +85 deg C

Humidity	100% RH at 35°C, 95%RH at 40°C
Shock	20G for 11msec half sine wave, 3 axis both directions
Vibration	25gRMS (15 degrees 2KHz) endurance, 1 hour per axis
Altitude	30,000 ft. (Epoxy Sealed Controlled environment)

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

Plotted and Other Data

Notes:



Features:

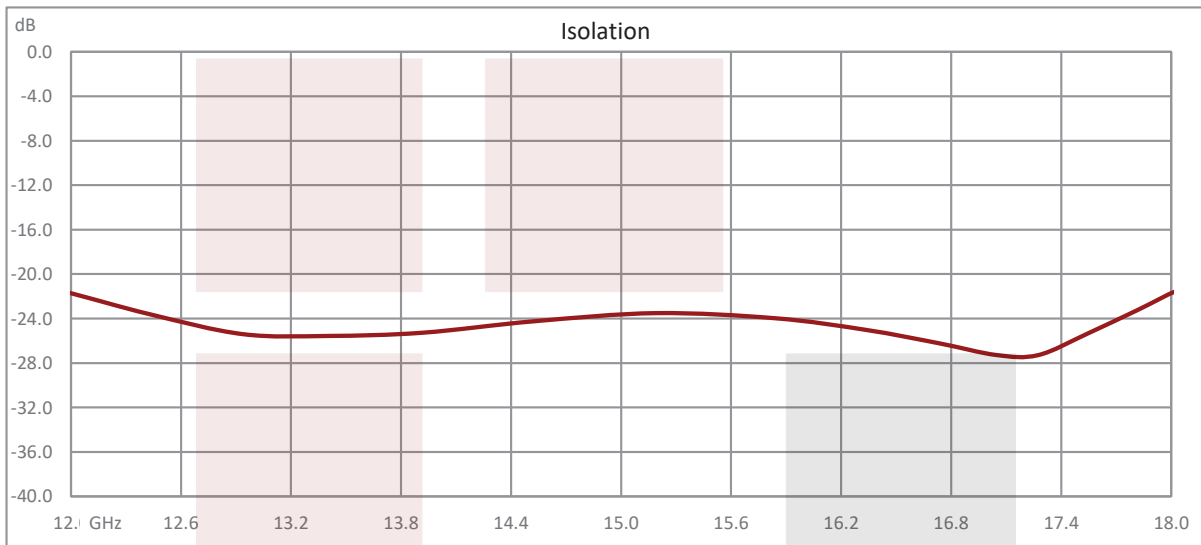
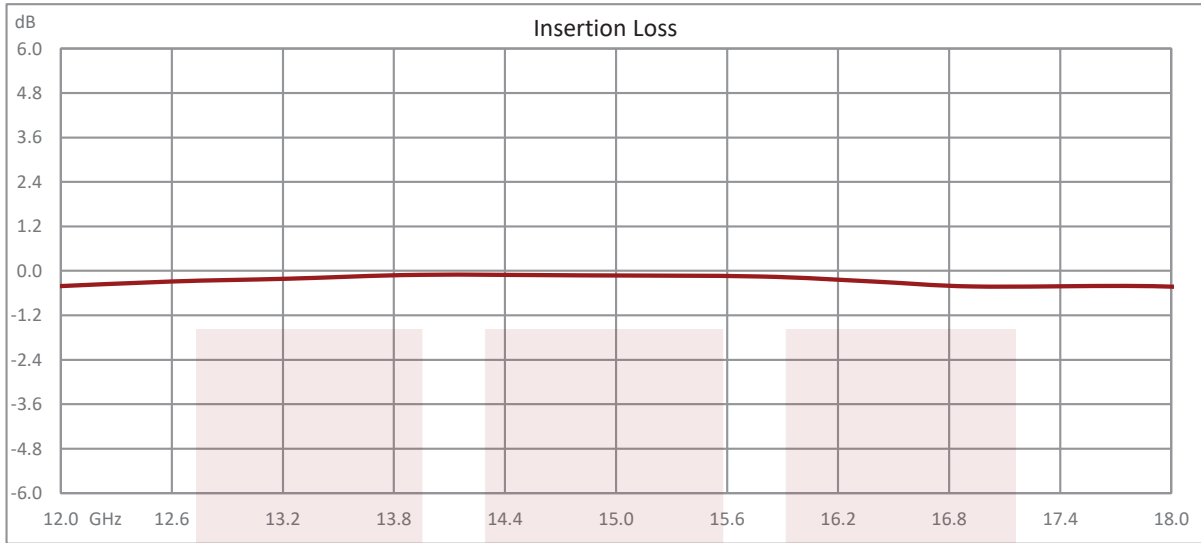
- Forward Power 10 watts
- Wide-Band Operating of 12 to 18 GHz
- Female SMA Connectors
- Low VSWR of 1.35:1 Max
- Low Insertion Loss of 0.5 dB Max
- Good Isolation Performance of 20 dB Minimum

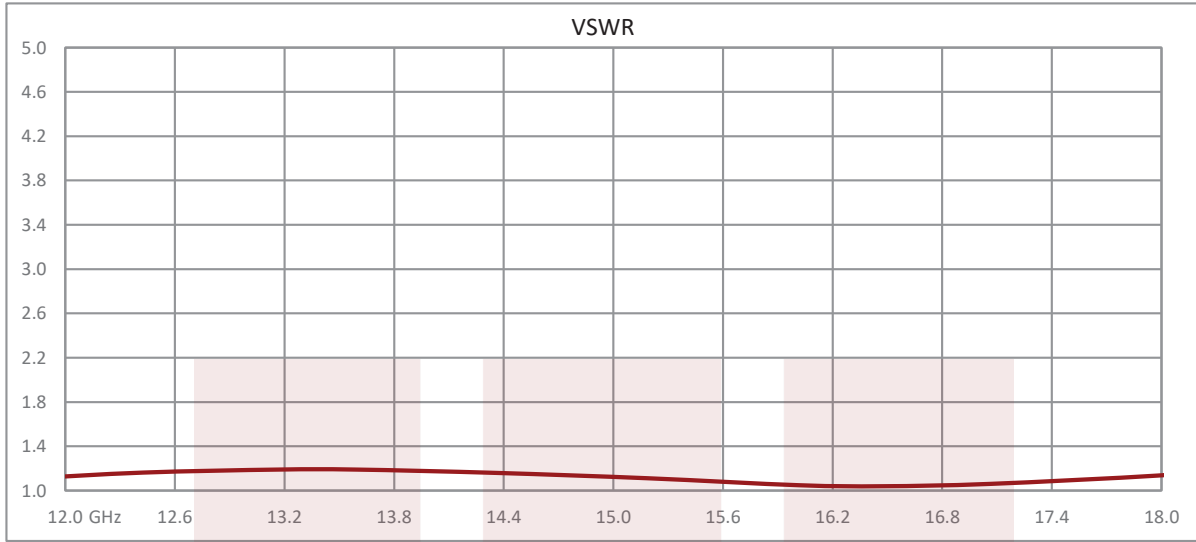
Applications:

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

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Typical Performance Data





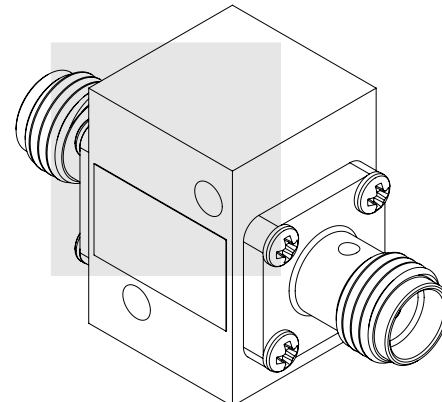
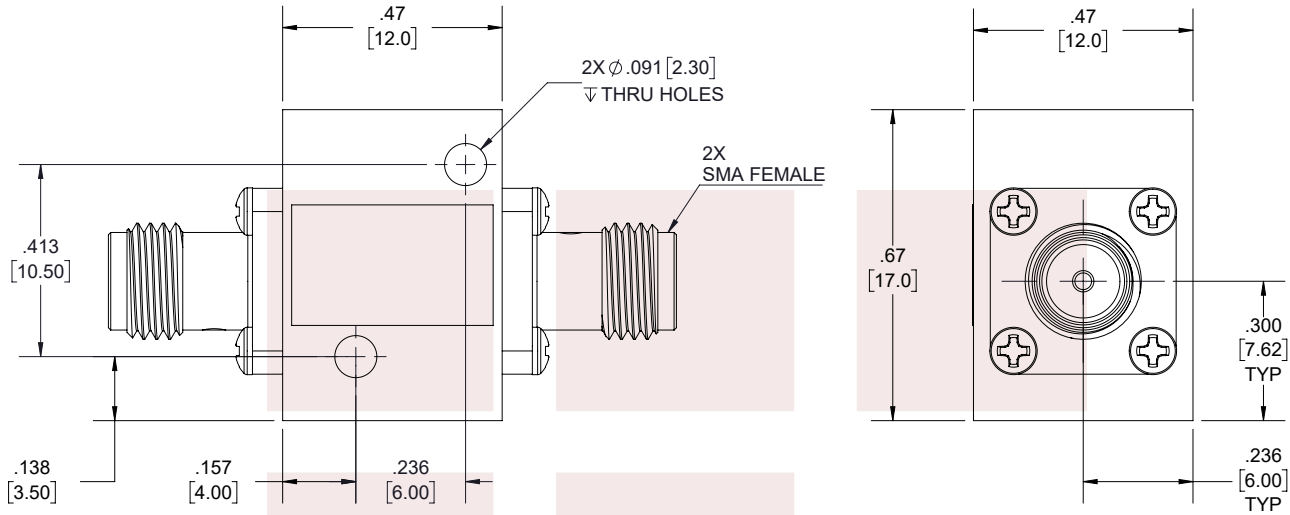
Isolator SMA Female with 20 dB Isolation from 12 GHz to 18 GHz Rated to 10 Watts from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [Isolator SMA Female with 20 dB Isolation from 12 GHz to 18 GHz Rated to 10 Watts FMIR1028](https://www.fairviewmicrowave.com/isolator-sma-female-20db-isolation-18-ghz-10-watts-fmir1028-p.aspx)

URL: <https://www.fairviewmicrowave.com/isolator-sma-female-20db-isolation-18-ghz-10-watts-fmir1028-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.

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	3/12/2020	S.PONG



LABEL

FAIRVIEW MICROWAVE	
FMIR1028	
D/C: WWYY	
1	2

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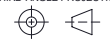
TITLE
Isolator SMA Female with 20 dB Isolation from 12 GHz to 18 GHz Rated to 10 Watts

UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES
DIMENSIONS IN [] ARE MILLIMETERS

TOLERANCES: CABLE LENGTH (L) TOLERANCES:

.X = ±.2 [5.08]	FRACTIONS	L ≤ 12 [305] = +1 [25] / -0
.XX = ±.02 [.51]	± 1/32	12 [305] < L ≤ 60 [1524] = +2 [51] / -0
.XXX = ±.005 [.13]	ANGLES ± 1°	60 [1524] < L ≤ 120 [3048] = +4 [102] / -0
		120 [3048] < L ≤ 300 [7620] = +6 [152] / -0
		300 [7620] < L = +5%L / -0

THIRD-ANGLE PROJECTION



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SHEET 1 OF 1

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

SCALE N/A

SIZE A	CAGE CODE 3FKR5	DRAWN BY K.DANG	ITEM NO. FMIR1028	REV A
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T-Rev.D