

Isolator N Female with 16 dB Isolation from 1 to 2 GHz Rated to 50 Watts

FMIR1053



Features

- 1 to 2 GHz Frequency Range
- Max Forward Power 50 Watt CW
- Max Reverse Power 10 Watt CW
- Insertion Loss 0.9 dB
- VSWR < 1.6:1
- Isolation > 16 dB
- N-Type Female Connectors

Applications

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

Description

The FMIR1053 is a single junction isolator offering a forward power rating of 50 Watt and reverse power rating of 10 Watt CW over an operational frequency band of 1 to 2 GHz. This coaxial isolator uses N-Type female connectors on all ports and has a minimum of 16 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	1		2	GHz
Impedance		50		Ohms
Isolation	16	17		dB
VSWR		1.5:1	1.6:1	
Forward Power, CW			50	Watts
Reverse Power, CW			10	Watts

Electrical Specification Notes:

Due to the magnetic components in the Isolators, please keep it at least 0.2 inches away from magnetic materials during installation or placement.

Mechanical Specifications

Size

Length	2.6 in [66.04 mm]
Width	2.52 in [64.01 mm]
Height	1.02 in [25.91 mm]
Weight	0.87 lbs [394.63 g]
Body Material and Plating	Aluminum Alloy

Configuration

Design	Single Junction
Direction	Clockwise

Isolator N Female with 16 dB Isolation
from 1 to 2 GHz Rated to 50 Watts



FMIR1053

Package Style	Connectorized
Connector 1	N Female
Connector 2	N Female

Environmental Specifications

Temperature

Operating Range	-20 to +60 deg C
Storage Range	-40 to +85 deg C
Humidity	100% RH at 35°c, 95%RH at 40°c
Shock	20G for 11msc half sin wave,3 axis both directions
Vibration	25g rms (15 degree 2KHz) endurance, 1 hour per axis
Altitude	30,000 ft. (Epoxy Seal Controlled environment)

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

Plotted and Other Data

Notes:

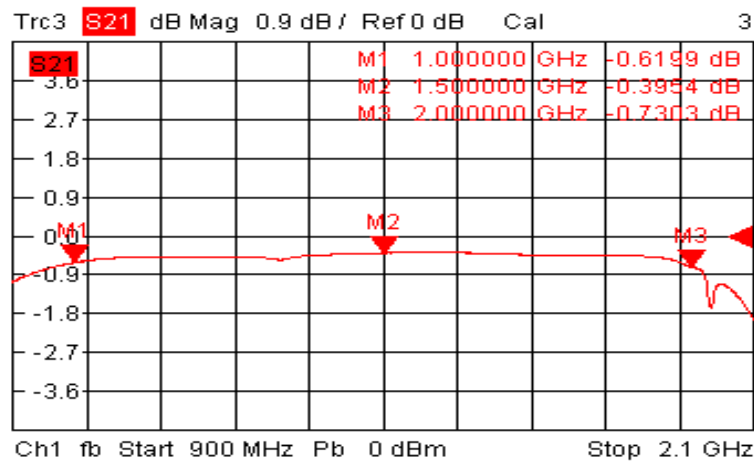
Isolator N Female with 16 dB Isolation
from 1 to 2 GHz Rated to 50 Watts



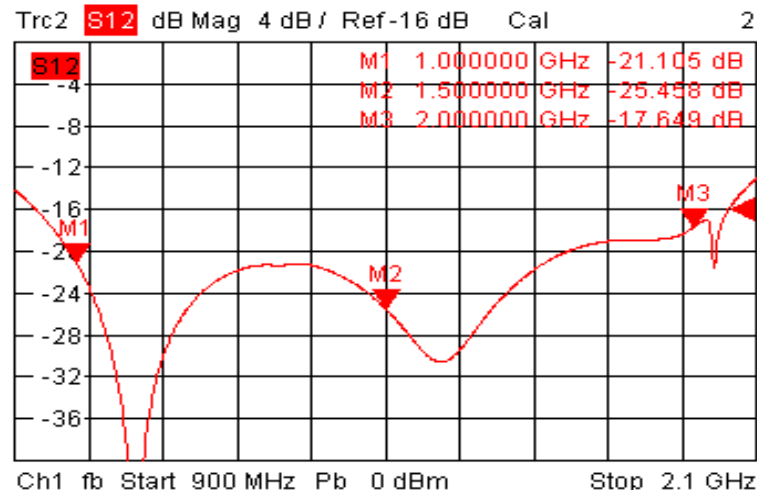
FMIR1053

Typical Performance Data

Insertion Loss



Isolation

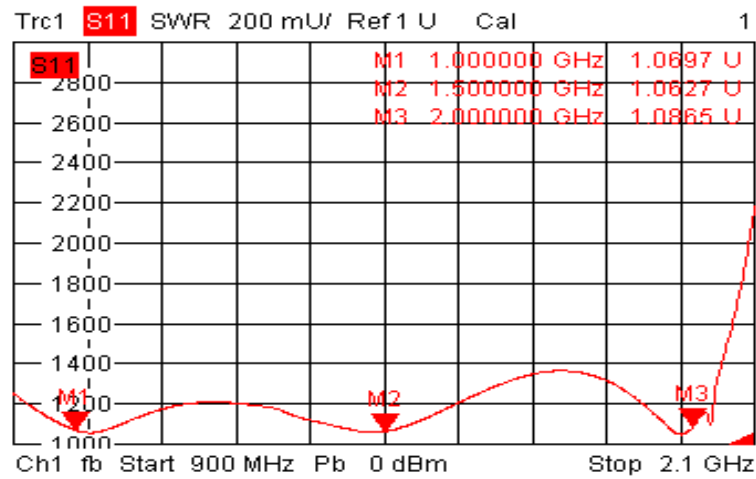


Isolator N Female with 16 dB Isolation
from 1 to 2 GHz Rated to 50 Watts

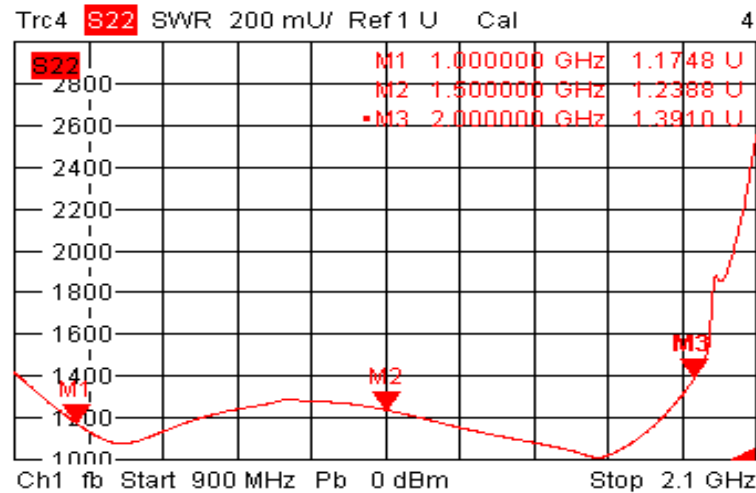


FMIR1053

VSWR 1



VSWR 2



Isolator N Female with 16 dB Isolation from 1 to 2 GHz Rated to 50 Watts



FMIR1053

Isolator N Female with 16 dB Isolation from 1 to 2 GHz Rated to 50 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 N Female with 16 dB Isolation from 1 to 2 GHz Rated to 50 Watts FMIR1053](https://www.fairviewmicrowave.com/isolator-n-female-16db-isolation-2-ghz-50-watts-fmir1053-p.aspx)

URL: <https://www.fairviewmicrowave.com/isolator-n-female-16db-isolation-2-ghz-50-watts-fmir1053-p.aspx>

The information contained within 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 liability arising out of the use of any part or document.

FMIR1053 CAD Drawing

Isolator N Female with 16 dB Isolation from 1 to 2 GHz Rated to 50 Watts

