

Isolator 2.4mm Female with 14 dB Isolation from 35 GHz to 42.5 GHz Rated to 10 Watts

The FMIR1038 is an RF isolator offering a forward power rating of 10 watts over an operational frequency band of 35 to 42.5 GHz. This coaxial part uses 2.4mm female connectors on all ports and has a minimum of 14 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 | 35 | | 42.5 | GHz |
| Impedance | | 50 | | Ohms |
| Insertion Loss | | | 1.6 | dB |
| Isolation | 14 | | | dB |
| VSWR | | | 1.6:1 | |
| Forward Power, CW | | | 10 | Watts |

Mechanical Specifications

| | |
|---------------------------|---------------------|
| Size | |
| Length | 1.02 in [25.91 mm] |
| Width | 0.51 in [12.95 mm] |
| Height | 0.65 in [16.51 mm] |
| Weight | 0.066 lbs [29.94 g] |
| Body Material and Plating | Copper, Nickel |

Configuration

| | |
|-------------|--------------|
| Direction | Clockwise |
| Connector 1 | 2.4mm Female |
| Connector 2 | 2.4mm 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:

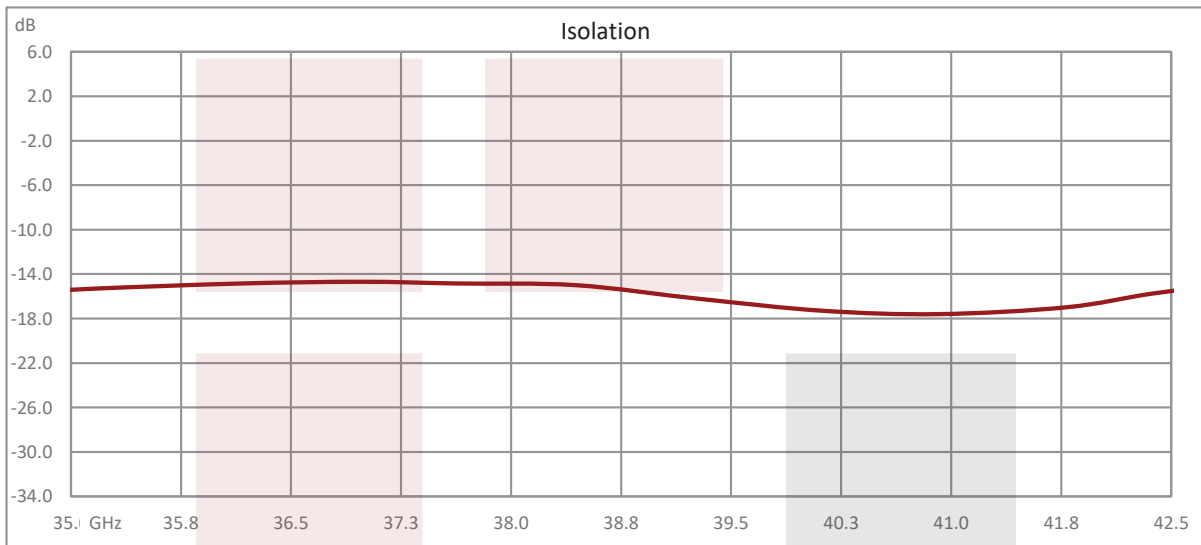
- Forward Power 10 watts
- Wide-Band Operating of 35 to 42.5 GHz
- Female 2.4mm Connectors
- Low VSWR of 1.60:1 Max
- Low Insertion Loss of 1.6 dB Max
- Good Isolation Performance of 14 dB Minimum

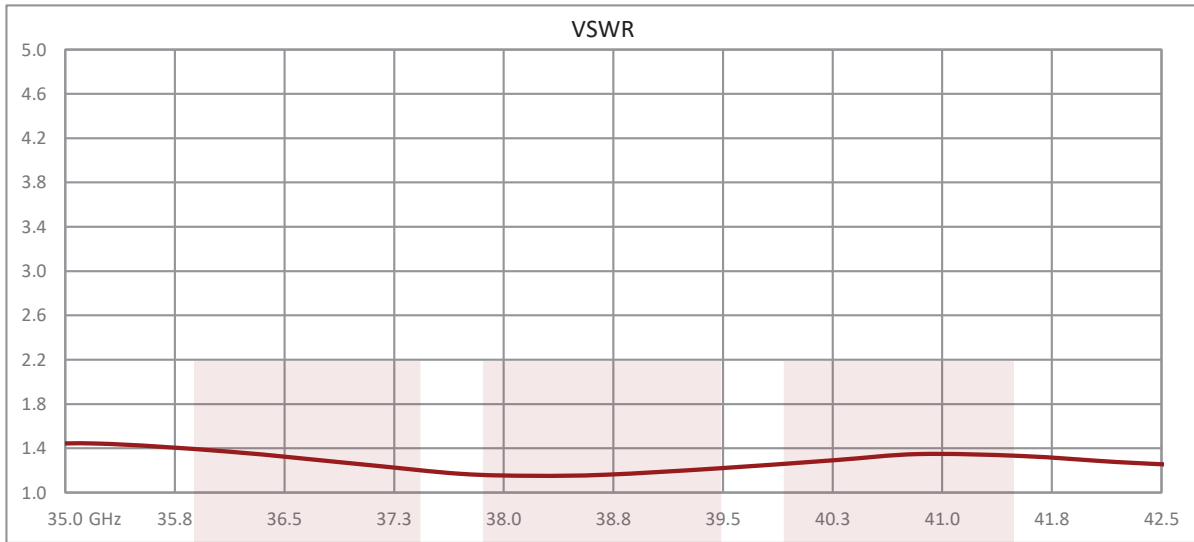
Applications:

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

Fairview Microwave
 301 Leora Ln., Suite 100
 Lewisville, TX 75056
 Tel: 1-800-715-4396 / (972) 649-6678
 Fax: (972) 649-6689
www.fairviewmicrowave.com
sales@fairviewmicrowave.com

Typical Performance Data



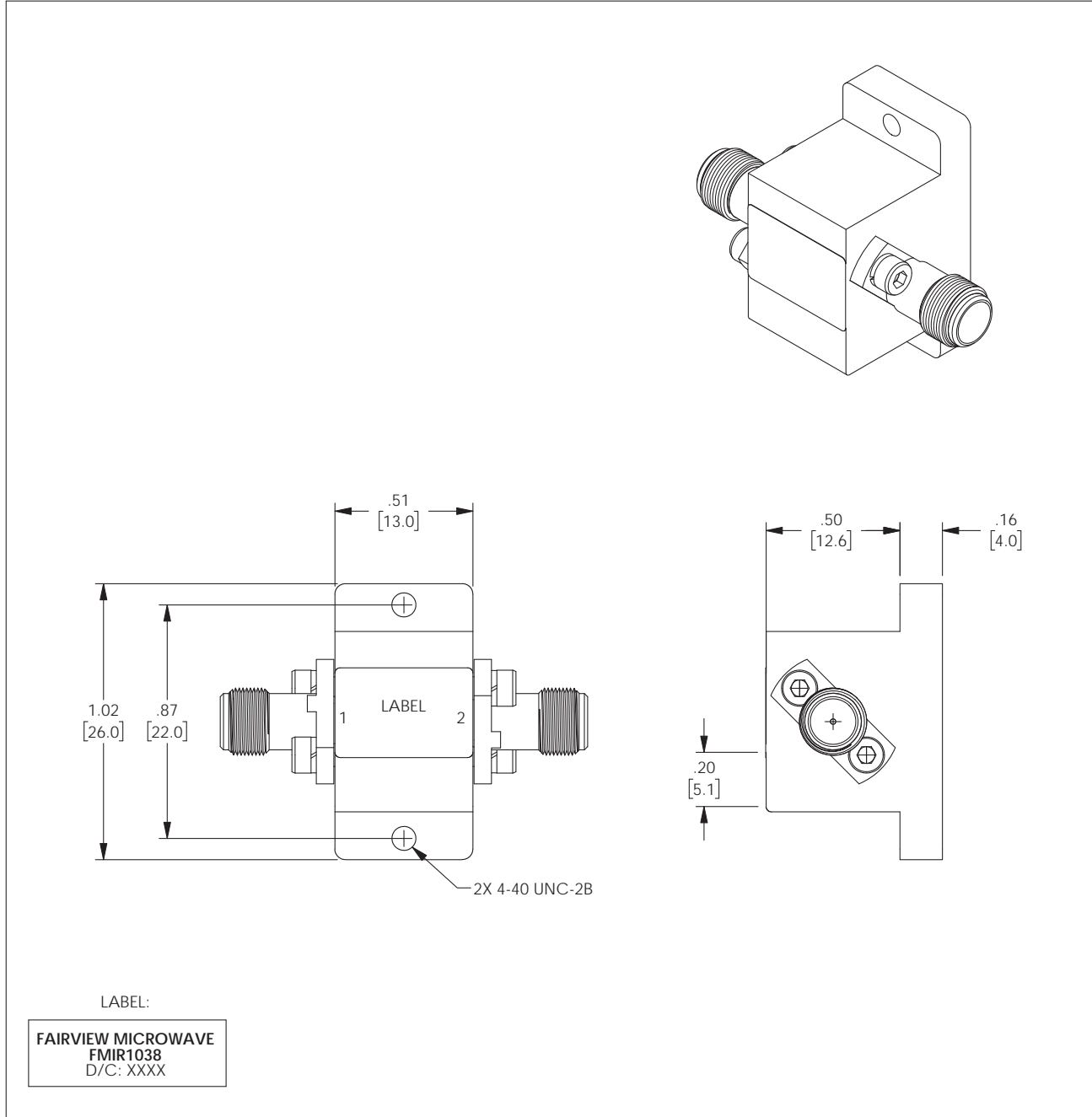


Isolator 2.4mm Female with 14 dB Isolation from 35 GHz to 42.5 GHz Rated to 10 Watts from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [Isolator 2.4mm Female with 14 dB Isolation from 35 GHz to 42.5 GHz Rated to 10 Watts FMIR1038](https://www.fairviewmicrowave.com/isolator-2.4mm-female-14db-isolation-42.5-ghz-10-watts-fmir1038-p.aspx)

URL: <https://www.fairviewmicrowave.com/isolator-2.4mm-female-14db-isolation-42.5-ghz-10-watts-fmir1038-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.



| | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
| <p>THESE COMMODITIES, TECHNOLOGY OR SOFTWARE WERE EXPORTED FROM THE UNITED STATES IN ACCORDANCE WITH THE EXPORT ADMINISTRATION REGULATIONS. DIVERSION CONTRARY TO U.S. LAW PROHIBITED.</p> | | | |
| <p>Fairview Microwave an INFINIT[®] brand</p> | | <p>UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [] ARE MILLIMETERS</p> | |
| <p>TITLE Isolator 2.4mm Female with 14 dB Isolation from 35 GHz to 42.5 GHz Rated to 10 Watts</p> | | <p>TOLERANCES: CABLE LENGTH (L) TOLERANCES:</p> <p>L ≤ 12 [305] = +1 [25] / -0 12 [305] < L ≤ 60 [1524] = +2 [51] / -0 60 [1524] < L ≤ 120 [3048] = +4 [102] / -0 120 [3048] < L ≤ 300 [7620] = +6 [152] / -0 300 [7620] < L = +5%L / -0</p> | |
| <p>FAIRVIEW MICROWAVE FMIR1038 D/C: XXXX</p> | | <p>THIRD-ANGLE PROJECTION</p> <p>THE INFORMATION AND DESIGN IN THIS DOCUMENT IS THE PROPERTY OF FAIRVIEW MICROWAVE CORPORATION. ALL RIGHTS RESERVED.</p> | |
| <p>ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.</p> | | <p>SHEET 1 OF 1</p> | |
| <p>SIZE A</p> | <p>CAGE CODE 3FKR5</p> | <p>DRAWN BY DFRISIELLO</p> | <p>ITEM NO. FMIR1038</p> |
| | | <p>SCALE N/A</p> | |
| | | <p>REV A</p> | |

T-Rev.D