

## WR-42 Waveguide Isolator with 18 dB min Isolation from 17.6 GHz to 26.7 GHz using Cover Flange in Aluminum

The FM-W42IR001 is a Waveguide Isolator offering 18 dB minimum isolation over the K band frequency range of 17.6 to 26.7 GHz. The design achieves high isolation with wide band performance and the WR-42 waveguide uses UG Square Cover compatible flanges on all ports and has a power rating of 30 watts (CW).

Fairview Microwave offers a wide variety of isolators and waveguide 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 waveguide isolators feature excellent insertion loss, full WR band high isolation and reliability.

### Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	17.6		26.7	GHz
Insertion Loss			0.3	dB
Isolation	18			dB
VSWR			1.3:1	
Forward Power (CW)			30	Watts
Forward Power (Peak)			500	Watts
Reverse Power (CW)			3	Watts
Reverse Power (Peak)			50	Watts

### Mechanical Specifications

#### Size

Length	1.97 in [50.04 mm]
Width	1.18 in [29.97 mm]
Height	0.88 in [22.35 mm]
Weight	0.2 lbs [90.72 g]

#### Configuration

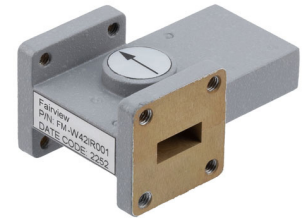
Waveguide Size	WR-42
Flange Type	Cover
Body Material and Plating	Aluminum, Chromate

### Environmental Specifications

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

### Plotted and Other Data

Notes:



### Features:

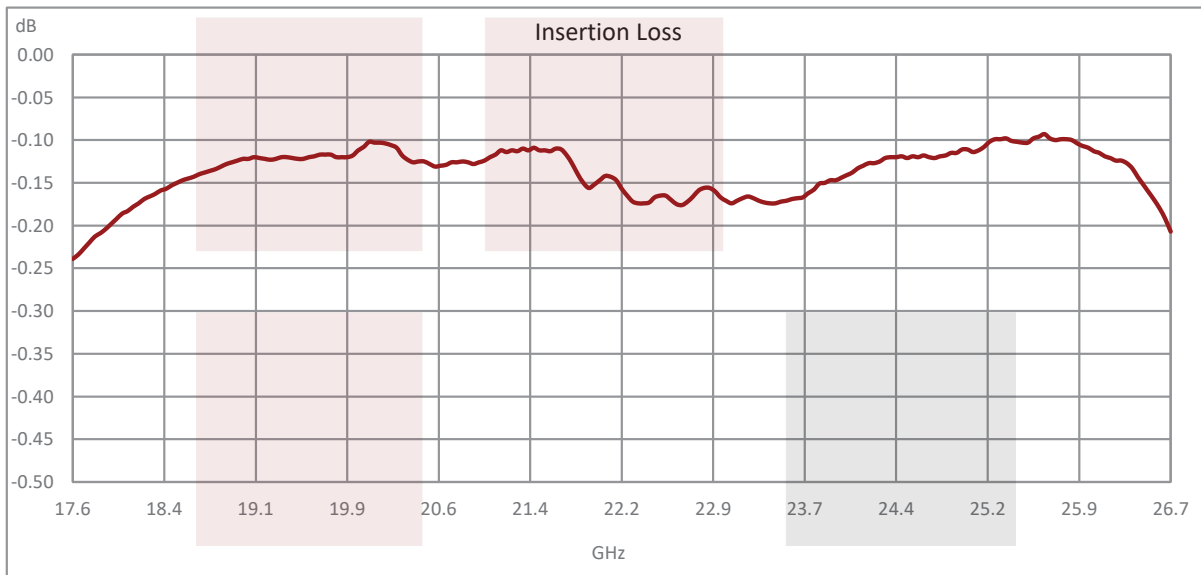
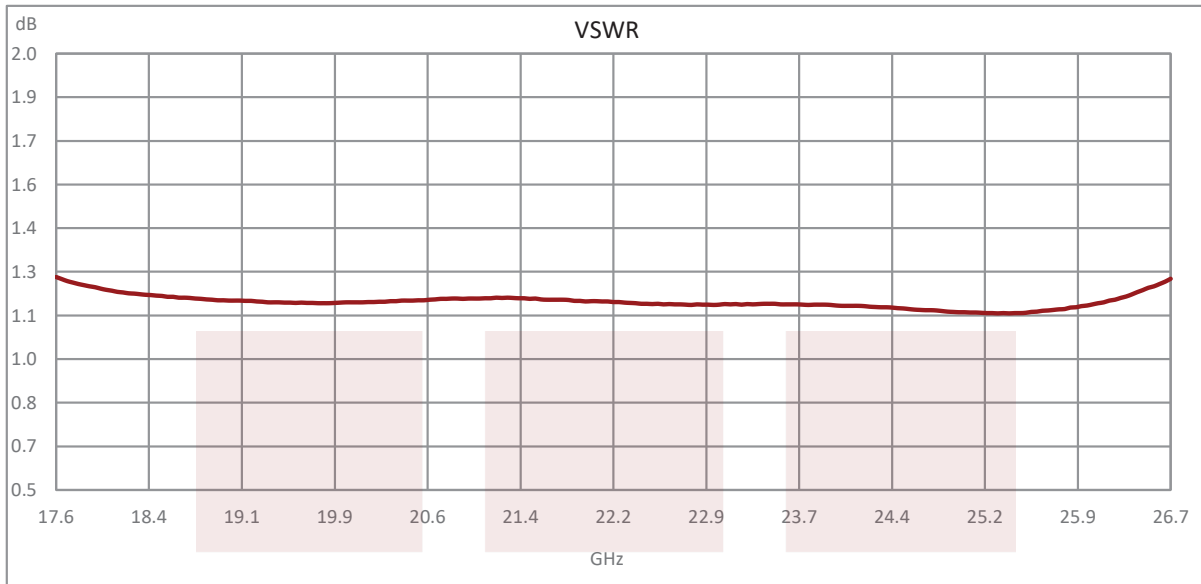
- WR-42 Waveguide Isolator
- K Band Frequency Range 17.6 to 26.7 GHz
- UG Cover Flange Configuration
- Maximum VSWR 1.3:1
- Minimum 18 dB isolation
- Maximum Forward Power 30 W (CW)

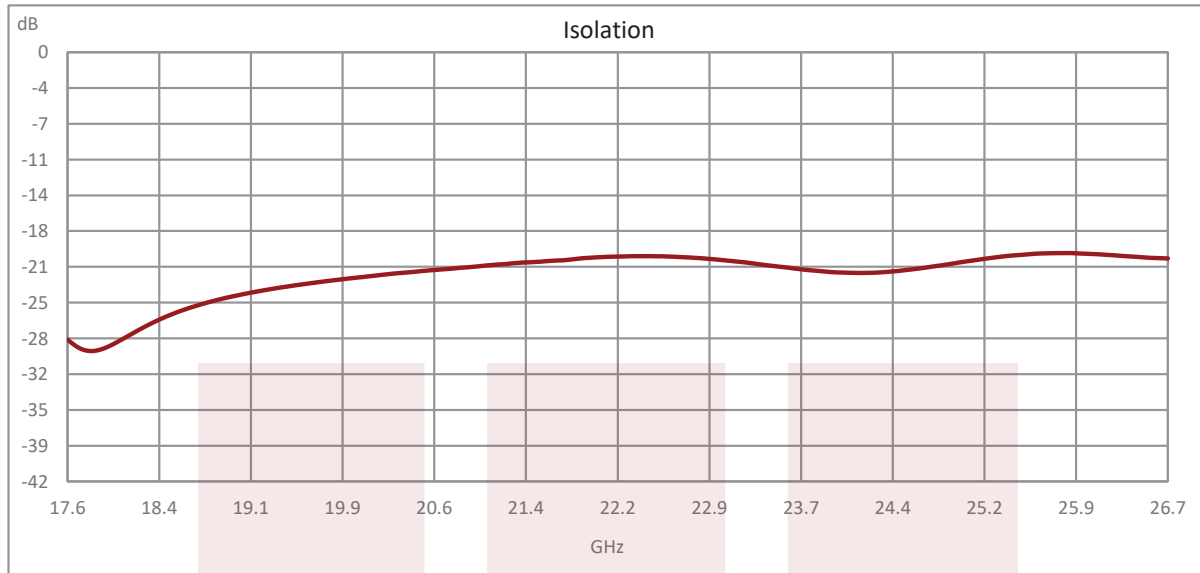
### Applications:

- 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](http://www.fairviewmicrowave.com)  
[sales@fairviewmicrowave.com](mailto:sales@fairviewmicrowave.com)

**Typical Performance Data**





WR-42 Waveguide Isolator with 18 dB min Isolation from 17.6 GHz to 26.7 GHz using Cover Flange in Aluminum 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: [WR-42 Waveguide Isolator with 18 dB min Isolation from 17.6 GHz to 26.7 GHz using Cover Flange in Aluminum FM-W42IR001](https://www.fairviewmicrowave.com/wr42-waveguide-isolator-18db-26.7ghz-fm-w42ir001-p.aspx)

URL: <https://www.fairviewmicrowave.com/wr42-waveguide-isolator-18db-26.7ghz-fm-w42ir001-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.

