

## WR-51 Waveguide Isolator with 18 dB min Isolation from 14.5 GHz to 22 GHz using Cover Flange in Aluminum

The FM-W51IR001 is a Waveguide Isolator offering 18 dB minimum isolation over the K band frequency range of 14.5 to 22 GHz. The design achieves high isolation with wide band performance and the WR-51 waveguide uses UG Square Cover compatible flanges on all ports and has a power rating of 50 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	14.5		22	GHz
Insertion Loss			0.3	dB
Isolation	18			dB
VSWR			1.3:1	
Forward Power (CW)			50	Watts
Forward Power (Peak)			1	kWatts
Reverse Power (CW)			5	Watts
Reverse Power (Peak)			100	Watts

### Mechanical Specifications

#### Size

Length	3.54 in [89.92 mm]
Width	1.77 in [44.96 mm]
Height	1.31 in [33.27 mm]
Weight	0.15 lbs [68.04 g]

#### Configuration

Waveguide Size	WR-51
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:

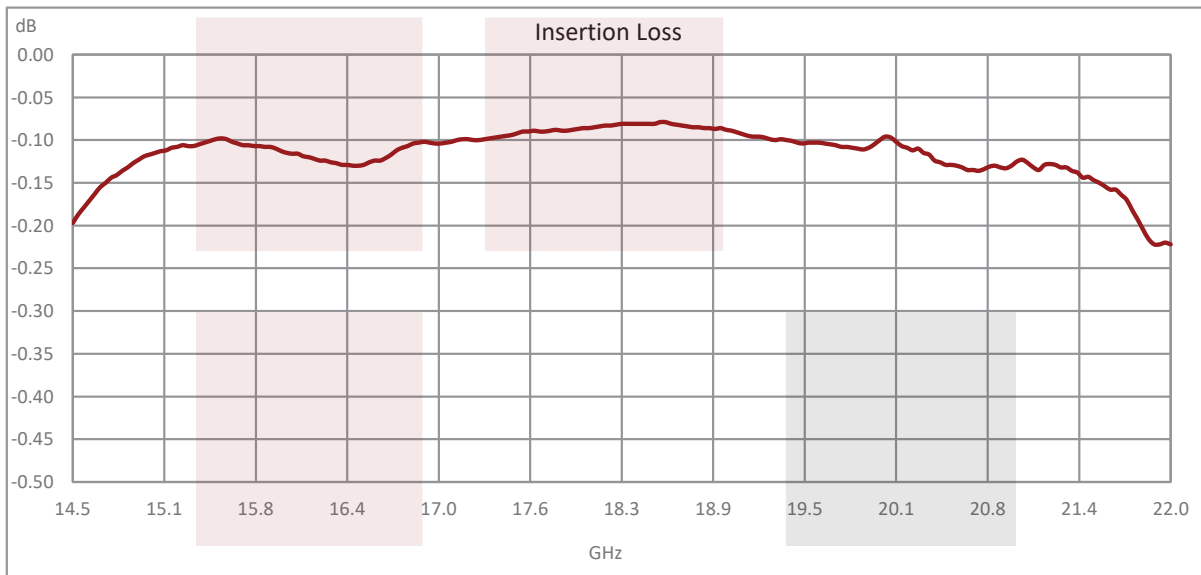
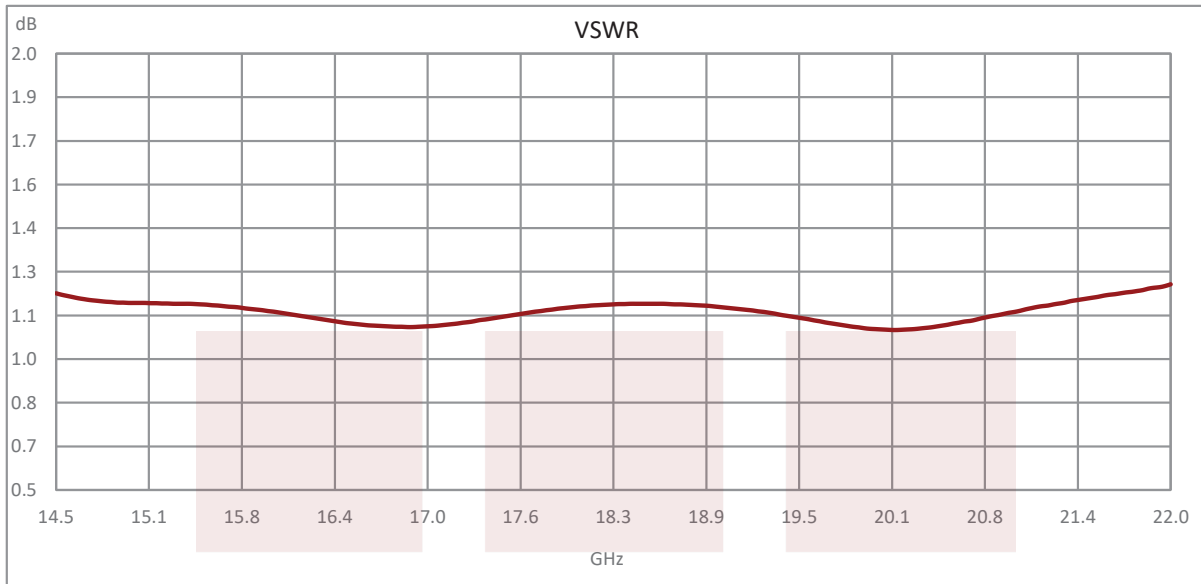
- WR-51 Waveguide Isolator
- K Band Frequency Range 14.5 to 22 GHz
- UG Cover Flange Configuration
- Maximum VSWR 1.3:1
- Minimum 18 dB isolation
- Maximum Forward Power 50 W (CW)

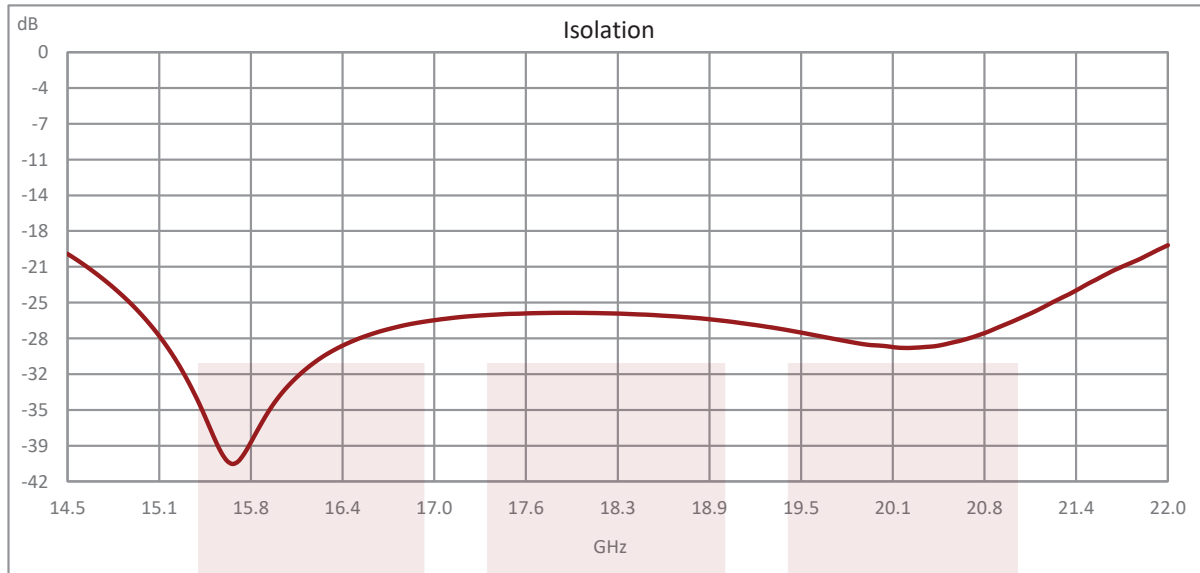
### Applications:

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

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**Typical Performance Data**





WR-51 Waveguide Isolator with 18 dB min Isolation from 14.5 GHz to 22 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-51 Waveguide Isolator with 18 dB min Isolation from 14.5 GHz to 22 GHz using Cover Flange in Aluminum FM-W51IR001](#)

URL: <https://www.fairviewmicrowave.com/wr51-waveguide-isolator-18db-22ghz-fm-w51ir001-p.aspx>

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