

**WR-10 Waveguide Isolator with 25 dB min Isolation  
 from 75 GHz to 110 GHz using Round Cover UG-387/  
 U-Mod Flange**

The FMWIR1000 is a Waveguide Faraday Isolator offering 25 dB minimum isolation over the full W band frequency range of 75 to 110 GHz. In a conventional isolator design, three or four parts would be needed to cover the full WR-10 band to achieve this level of isolation. The Faraday design achieves high isolation with wide band performance. This gold plated WR-10 waveguide component uses UG-387/U-Mod round cover flanges on all ports and has a power rating of 1 watt in the forward direction.

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.



**Features:**

- Waveguide Faraday Isolator
- WR-10
- Full W Band Frequency Range 75 to 110 GHz
- UG-387/U-Mod Round Cover Flange
- 1.5:1 VSWR

**Applications:**

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

**Electrical Specifications**

Description	Min	Typ	Max	Units
Frequency Range	75		110	GHz
Insertion Loss			2.3	dB
Isolation	25	30		dB
VSWR			1.5:1	
Forward Power, CW			1	Watts

**Mechanical Specifications**

Size	
Length	2.5 in [63.5 mm]
Height	0.94 in [23.88 mm]
Configuration	
Design	Faraday
Waveguide Size	WR-10
Flange Designation	UG-387/U-Mod
Flange Type	Round Cover

**Environmental Specifications**

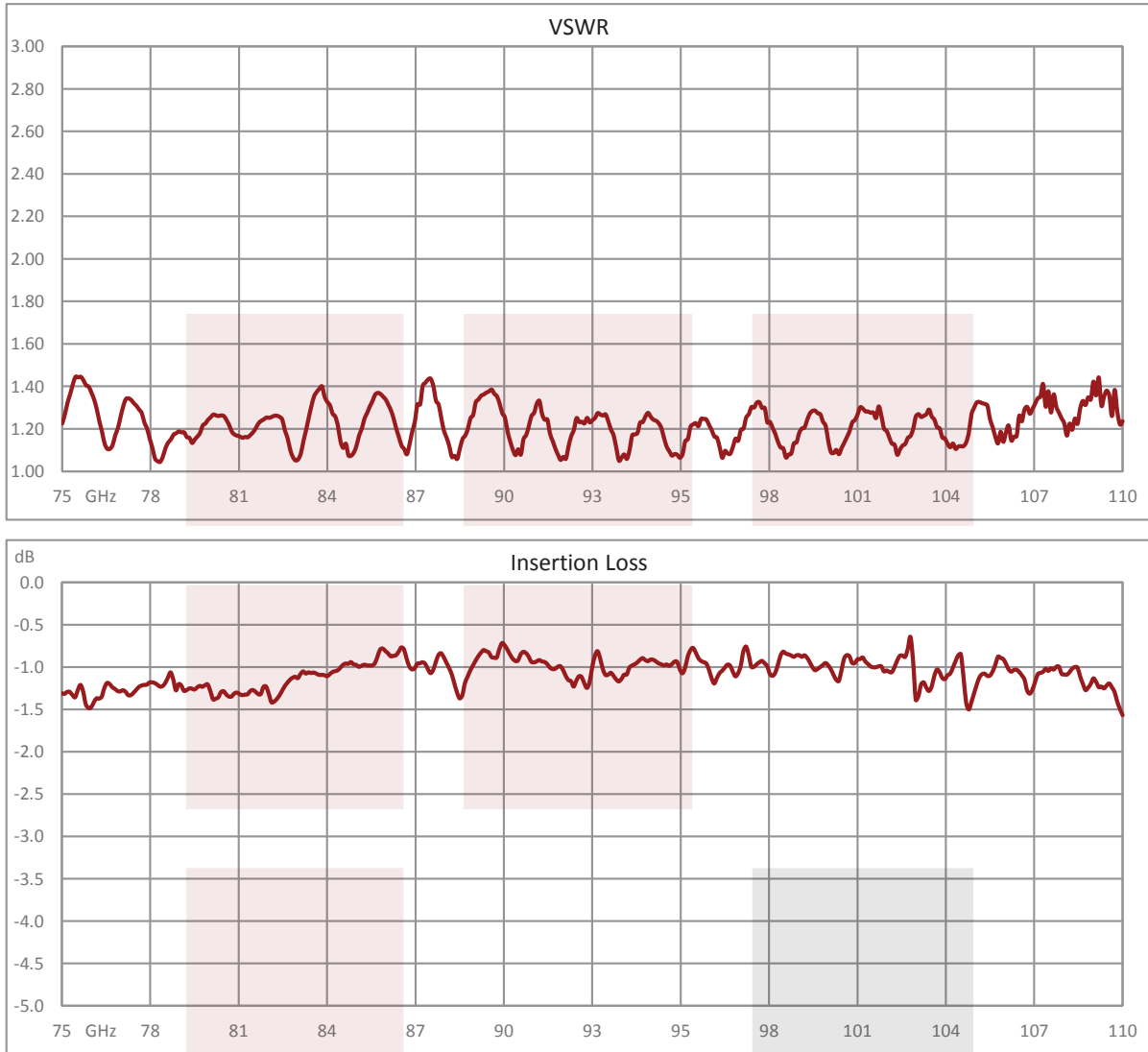
**Compliance Certifications** (see [product page](#) for current document)

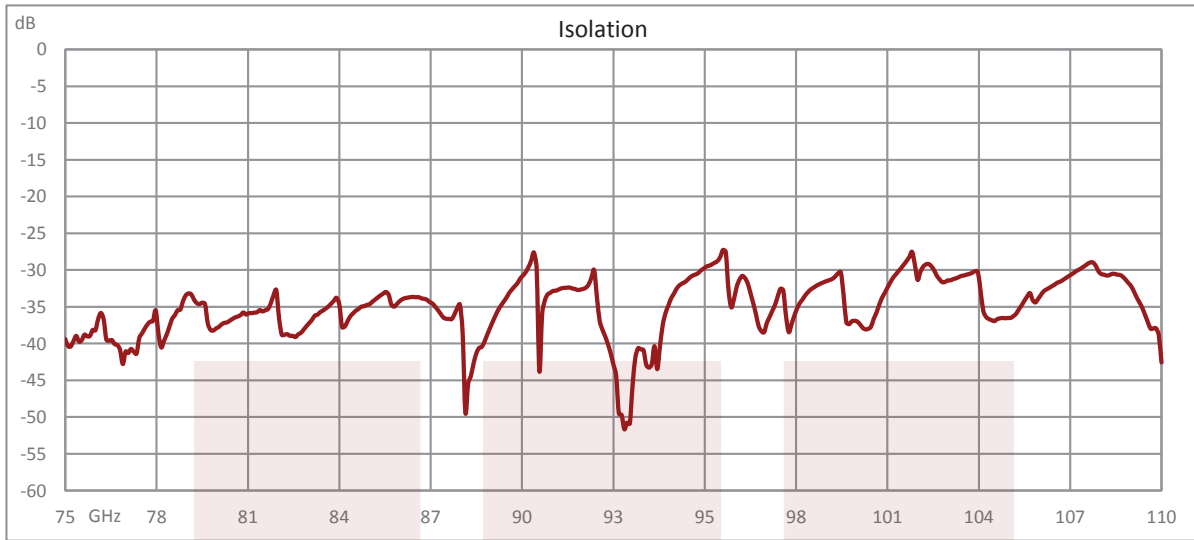
**Plotted and Other Data**

Notes:

Fairview Microwave  
 1130 Junction Dr. #100  
 Allen, TX 75013  
 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**



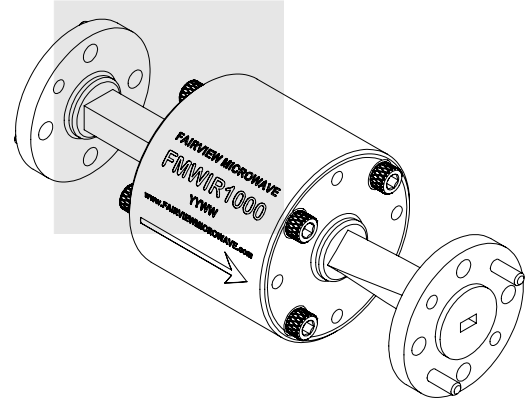
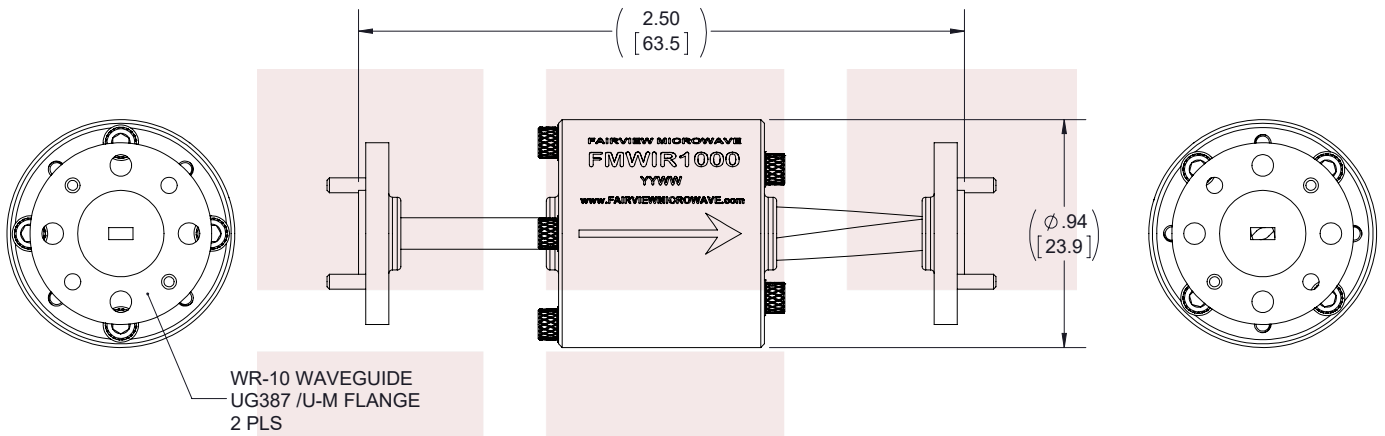


WR-10 Waveguide Isolator with 25 dB min Isolation from 75 GHz to 110 GHz using Round Cover UG-387/U-Mod Flange from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [WR-10 Waveguide Isolator with 25 dB min Isolation from 75 GHz to 110 GHz using Round Cover UG-387/U-Mod Flange FMWIR1000](https://www.fairviewmicrowave.com/wr-10-waveguide-isolator-25-db-110-ghz-ug387-mod-fmwir1000-p.aspx)

URL: <https://www.fairviewmicrowave.com/wr-10-waveguide-isolator-25-db-110-ghz-ug387-mod-fmwir1000-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.



STANDARD TOLERANCES	
.X	±0.2
.XX	±0.01
.XXX	±0.005

\*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

<b>FAIRVIEW MICROWAVE INC.</b> ALLEN, TX 75013 WWW.FAIRVIEWMICROWAVE.COM		NOTES: 1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL. 2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME. 3. DIMENSIONS ARE IN INCHES [mm].						
TITLE WR-10 Waveguide Isolator with 25 dB min Isolation from 75 GHz to 110 GHz using Round Cover UG-387/ U-Mod Flange		DWG NO <b>FMWIR1000</b>		CAGE CODE <b>3FKR5</b>				
CAD FILE	100517	SHEET	1 OF 1	SCALE	N/A	SIZE	A	7361