

WR-137 Waveguide Isolator with 17 dB min Isolation from 5.38 GHz to 8.17 GHz using CPR137F Flange in Aluminum

The FM-W137IR001 is a Waveguide Isolator offering 17 dB minimum isolation over the C band frequency range of 5.38 to 8.17 GHz. The design achieves high isolation with wide band performance and the WR-137 waveguide uses CPR137F compatible flanges on all ports and has a power rating of 150 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	5.38		8.17	GHz
Insertion Loss			0.4	dB
Isolation	17			dB
VSWR			1.35:1	
Forward Power (CW)			150	Watts
Forward Power (Peak)			10	kWatts
Reverse Power (CW)			15	Watts
Reverse Power (Peak)			10	kWatts

Mechanical Specifications

Size

Length	6.5 in [165.1 mm]
Width	3.34 in [84.84 mm]
Height	1.94 in [49.28 mm]
Weight	0.5 lbs [226.8 g]

Configuration

Waveguide Size	WR-137
Flange Type	CPR-137F
Body Material and Plating	Aluminum, Chromate

Environmental Specifications

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

Plotted and Other Data

Notes:



Features:

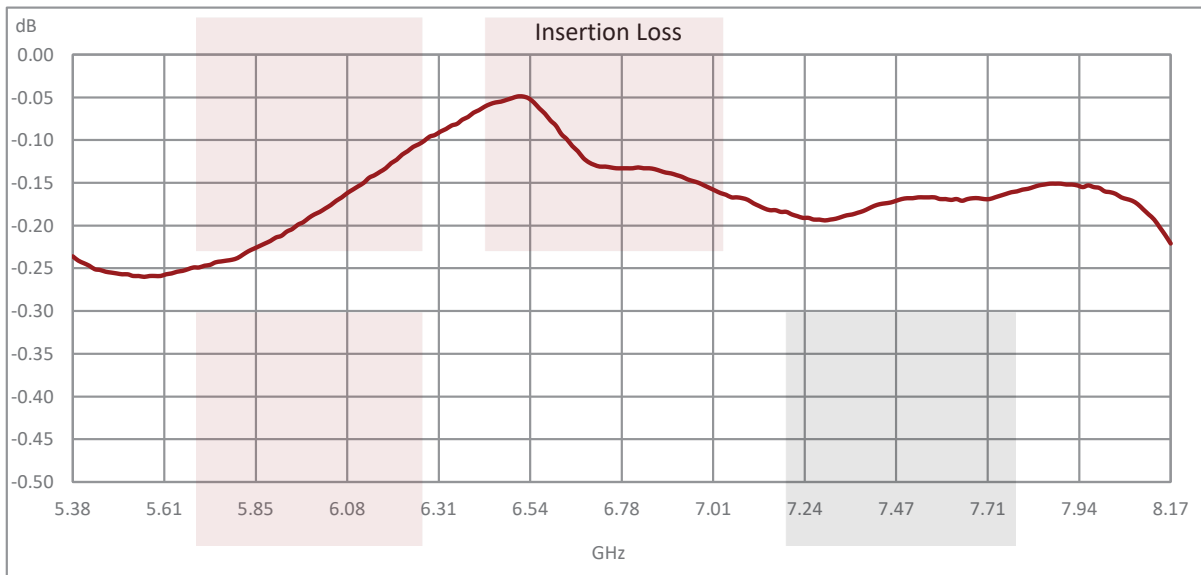
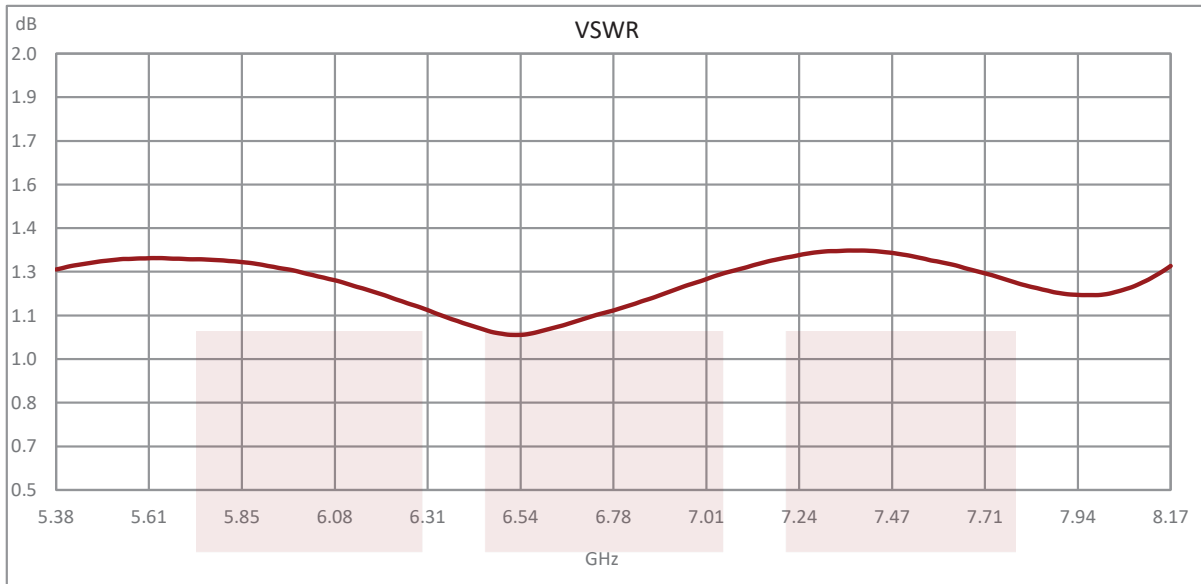
- WR-137 Waveguide Isolator
- C Band Frequency Range 5.38 to 8.17 GHz
- CPR137F Flange Configuration
- Maximum VSWR 1.35:1
- Minimum 17 dB isolation
- Maximum Forward Power 150 W (CW)

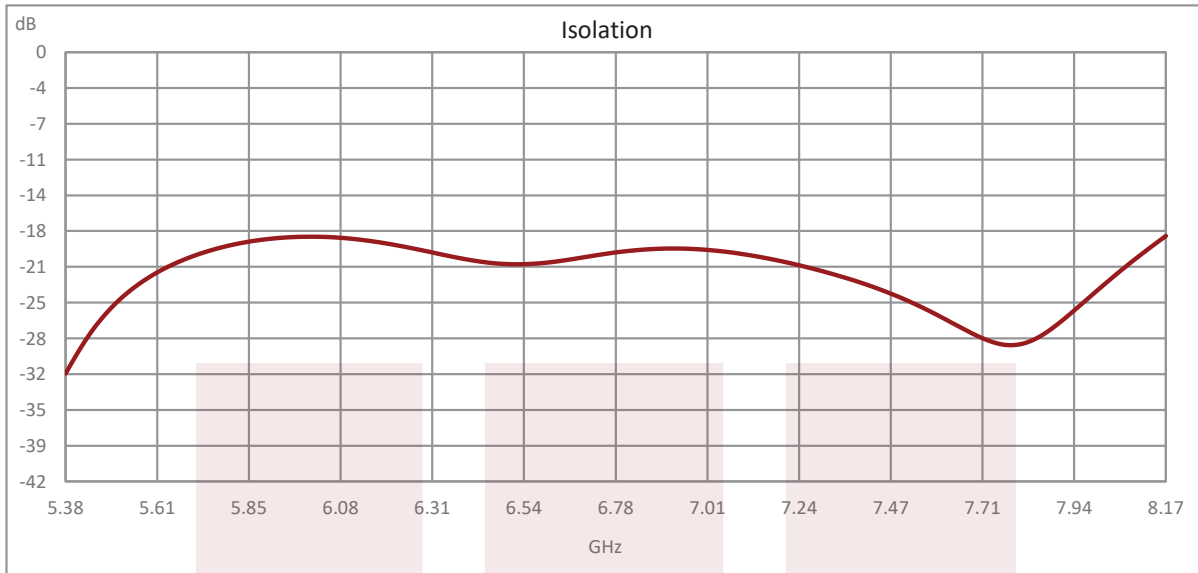
Applications:

- 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
sales@fairviewmicrowave.com

Typical Performance Data



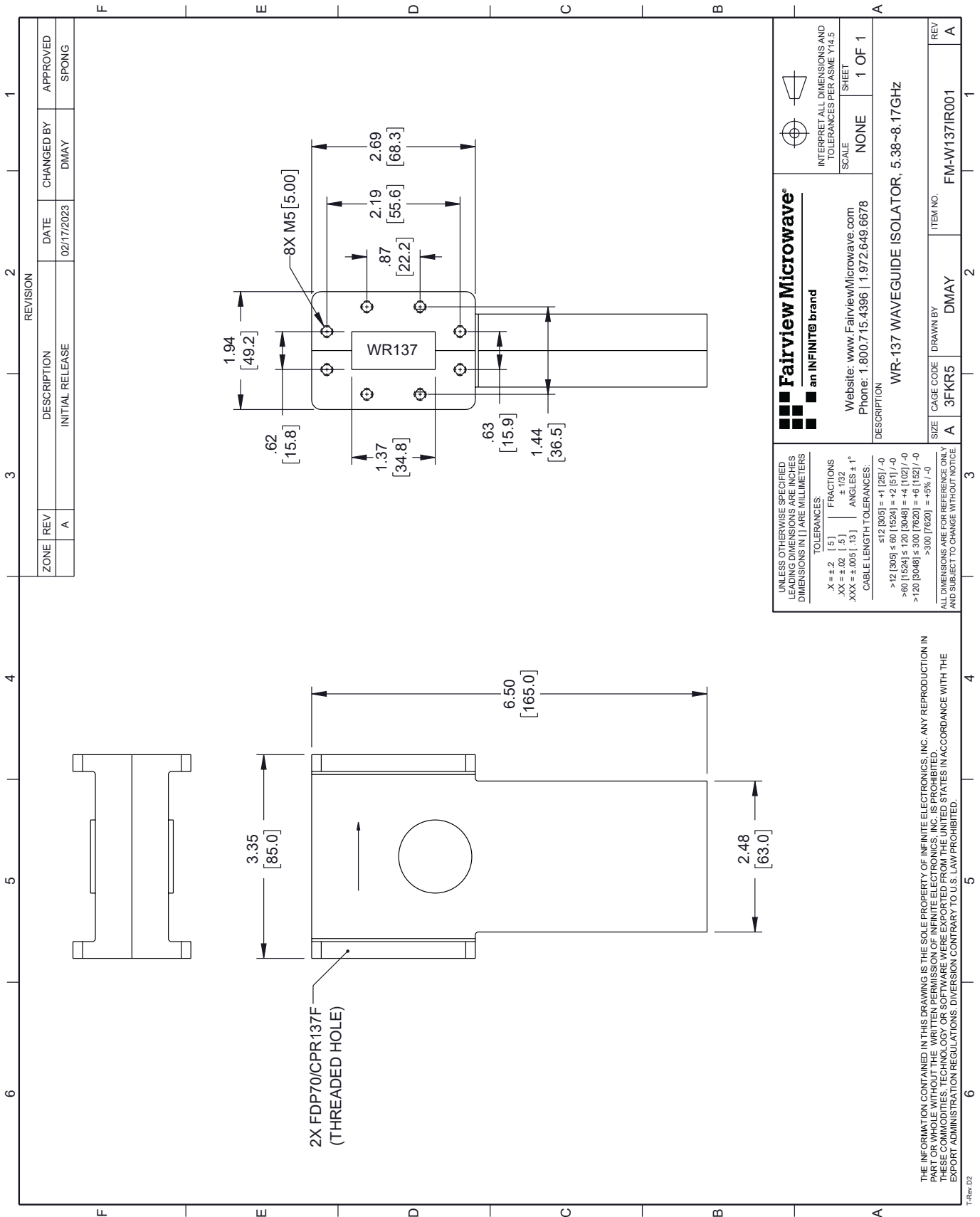


WR-137 Waveguide Isolator with 17 dB min Isolation from 5.38 GHz to 8.17 GHz using CPR137F Flange in Aluminum from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [WR-137 Waveguide Isolator with 17 dB min Isolation from 5.38 GHz to 8.17 GHz using CPR137F Flange in Aluminum FM-W137IR001](https://www.fairviewmicrowave.com/wr137-waveguide-isolator-17db-8.17ghz-fm-w137ir001-p.aspx)

URL: <https://www.fairviewmicrowave.com/wr137-waveguide-isolator-17db-8.17ghz-fm-w137ir001-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.



ZONE		REVISION		DESCRIPTION		DATE		CHANGED BY		APPROVED	
A				INITIAL RELEASE		02/17/2023		DMAY		SPONG	

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Website: www.FairviewMicrowave.com
Phone: 1.800.715.4396 | 1.972.649.6678

INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5
SCALE NONE
SHEET 1 OF 1

DESCRIPTION
WR-137 WAVEGUIDE ISOLATOR, 5.38-8.17GHZ

SIZE	CAGE CODE	DRAWN BY	ITEM NO.
A	3FKR5	DMAY	FM-W137IR001

REV A

UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [] ARE MILLIMETERS

TOLERANCES:
 .X = ±.2 [5]
 .XX = ±.02 [.5]
 .XXX = ±.005 [.13]
 FRACTIONS ± 1/32
 ANGLES ± 1°

CABLE LENGTH TOLERANCES:
 ≤12 [305] = +1 [25] / -0
 >12 [305] ≤ 60 [1524] = +2 [51] / -0
 >60 [1524] ≤ 120 [3048] = +4 [102] / -0
 >120 [3048] ≤ 300 [7620] = +6 [152] / -0
 >300 [7620] = +5% / -0

ALL DIMENSIONS ARE FOR REFERENCE ONLY AND SUBJECT TO CHANGE WITHOUT NOTICE

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