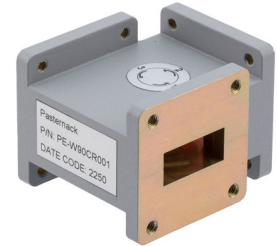


WR-90 Waveguide Circulator with 18 dB min Isolation from 8.2 GHz to 12.4 GHz using Cover Flange in Aluminum

The FM-W90CR001 is a Waveguide Circulator offering 18 dB minimum isolation over the X band frequency range of 8.2 to 12.4 GHz. The design achieves high isolation with wide band performance and the WR-90 waveguide uses UG Square Cover compatible flanges on all ports and has a power rating of 100 watts (CW).

Fairview Microwave offers a wide variety of circulators and waveguide circulators to fit your needs. These unique devices enable two signals to use one channel. The classic use of this three port device is for the line between an antenna and a transceiver, allowing the receive signal to come from the antenna (port 1) to the receiver (port 2) while the transmit signal goes from the transmitter (port 3) to the antenna (port 1). An isolator can be created by terminating one port into a matched load. These components can be used in antenna transmitting and receiving, radar, amplifier systems and anything that requires isolation from a signal reflection and the ability to send signals in opposite directions down a single channel. These circulators feature excellent insertion loss, high isolation and reliability.



Features:

- WR-90 Waveguide Circulator
- X Band Frequency Range 8.2 to 12.4 GHz
- UG Cover Flange Configuration
- Maximum VSWR 1.35:1
- Minimum 18 dB isolation
- Maximum Power 100 W (CW)

Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	8.2		12.4	GHz
VSWR			1.35:1	
Insertion Loss			0.3	dB
Isolation	18			dB
Forward Power (CW)			100	Watts
Input Power (Peak)			3	kWatts

Mechanical Specifications

Size

Length	2.19 in [55.63 mm]
Width	1.97 in [50.04 mm]
Height	1.63 in [41.4 mm]
Weight	0.5 lbs [226.8 g]

Waveguide Size	WR-90
Flange Designation	None
Flange Type	Cover
Flange Material and Plating	Aluminum, Chromate

Environmental Specifications

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

Plotted and Other Data

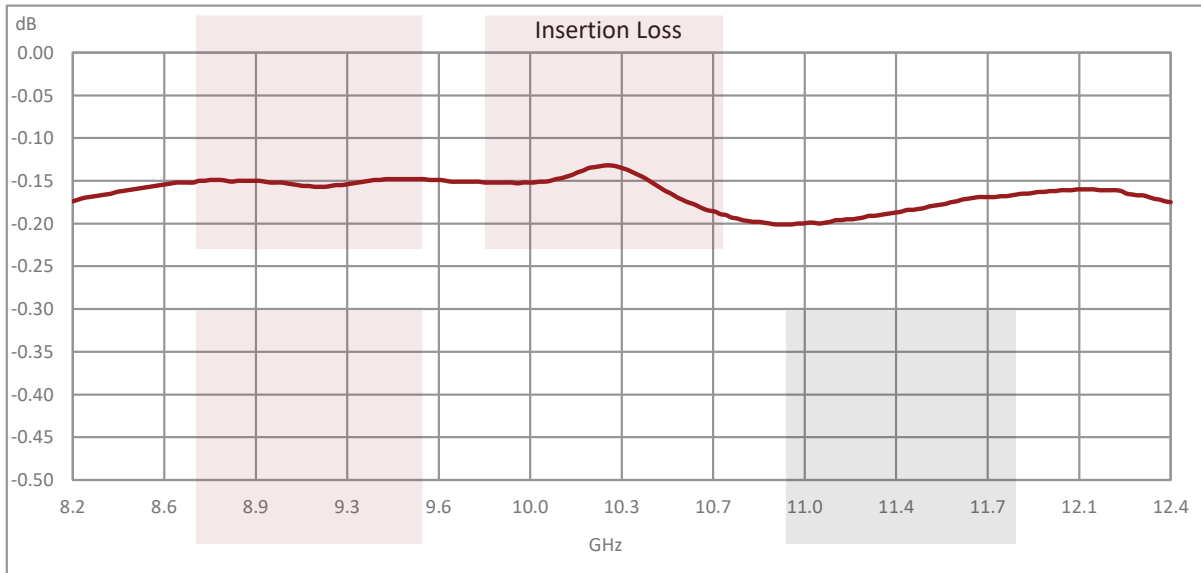
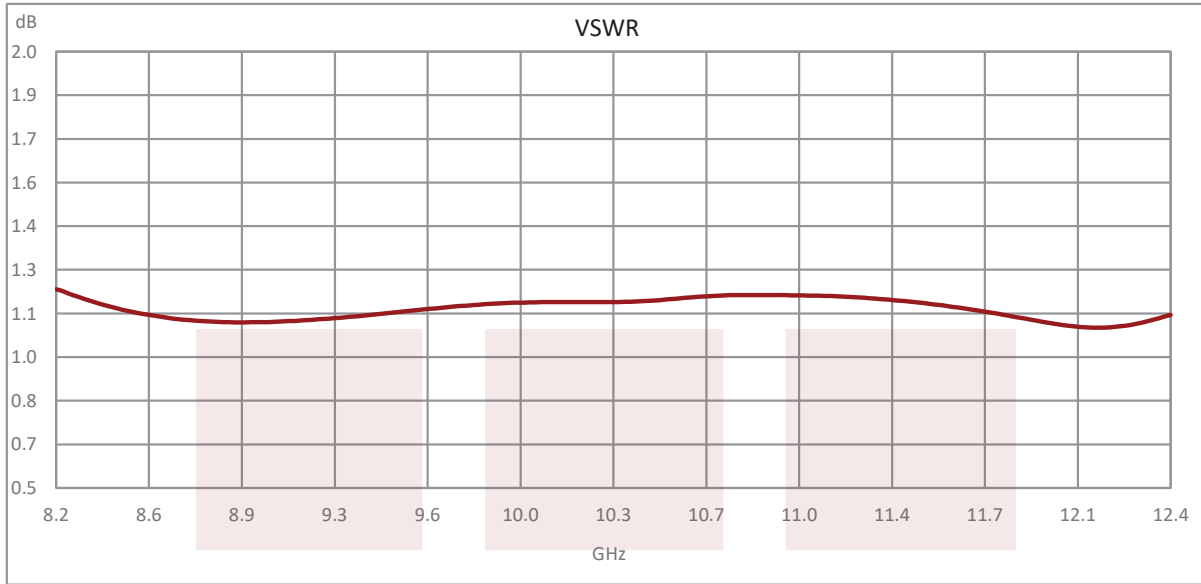
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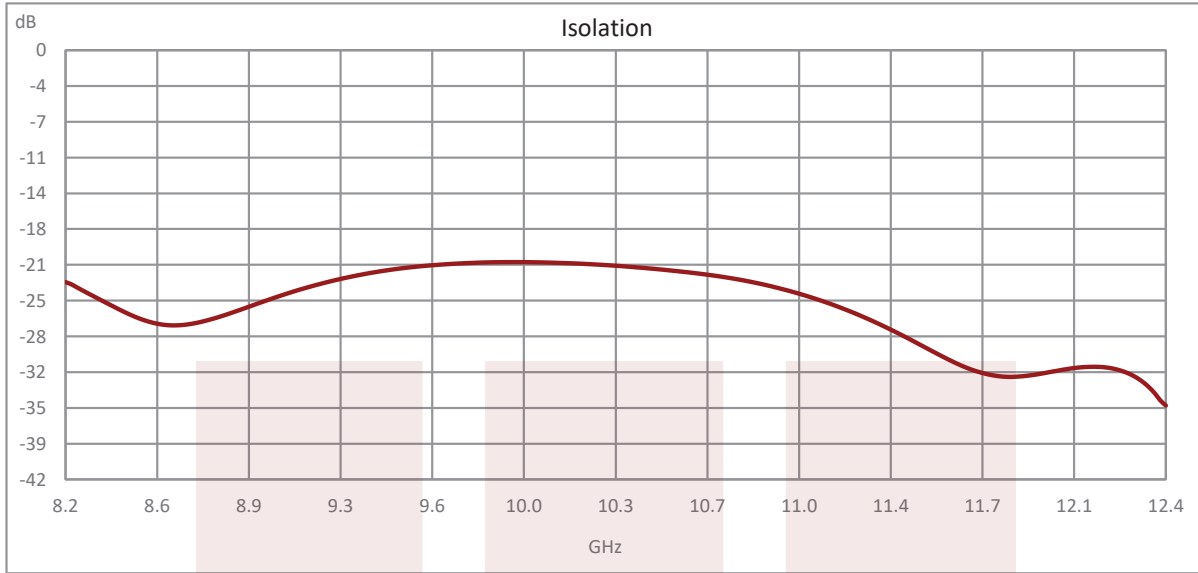
Applications:

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

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Typical Performance Data





WR-90 Waveguide Circulator with 18 dB min Isolation from 8.2 GHz to 12.4 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-90 Waveguide Circulator with 18 dB min Isolation from 8.2 GHz to 12.4 GHz using Cover Flange in Aluminum FM-W90CR001](https://www.fairviewmicrowave.com/wr90-waveguide-circulator-18db-12.4-ghz-cover-flange-aluminum-fm-w90cr001)

URL: <https://www.fairviewmicrowave.com/wr90-waveguide-circulator-18db-12.4-ghz-cover-flange-aluminum-fm-w90cr001-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.

