

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

The FM-W42CR001 is a Waveguide Circulator 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 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-42 Waveguide Circulator
- K Band Frequency Range 17.6 to 26.7 GHz
- UG Cover Flange Configuration
- Maximum VSWR 1.3:1
- Minimum 18 dB isolation
- Maximum Power 30 W (CW)

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	17.6		26.7	GHz
VSWR			1.3:1	
Insertion Loss			0.3	dB
Isolation	18			dB
Forward Power (CW)			30	Watts
Input Power (Peak)			500	Watts

Mechanical Specifications

Size

Length	1.19 in [30.23 mm]
Width	1.2 in [30.48 mm]
Height	0.89 in [22.61 mm]
Weight	0.15 lbs [68.04 g]

Waveguide Size	WR-42
Flange Designation	None
Flange Type	Cover
Flange Material and Plating	Aluminum, Chromate

Environmental Specifications

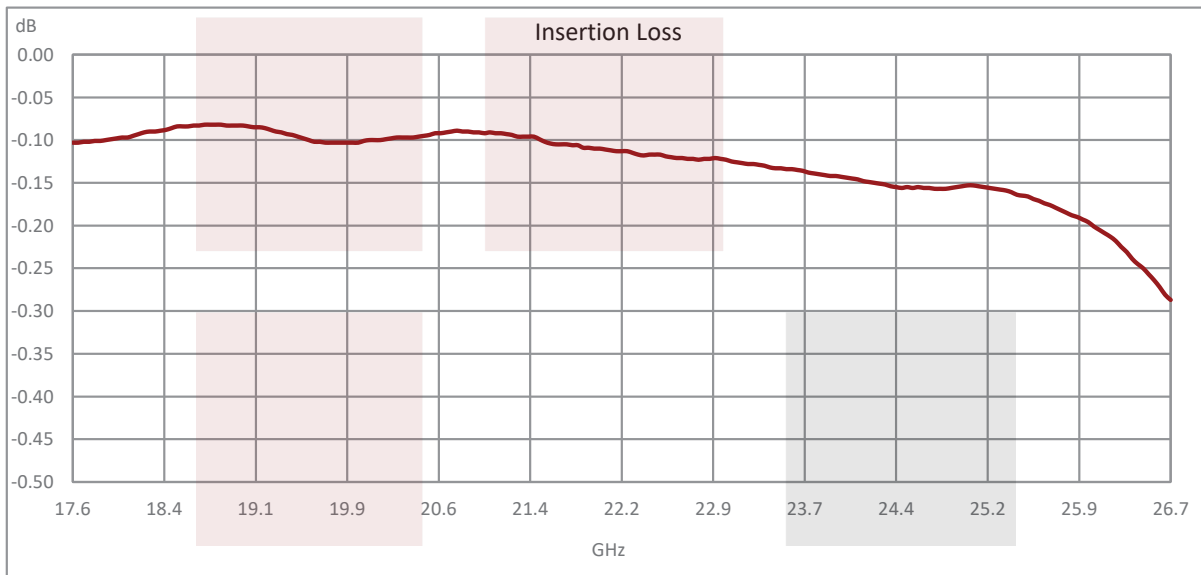
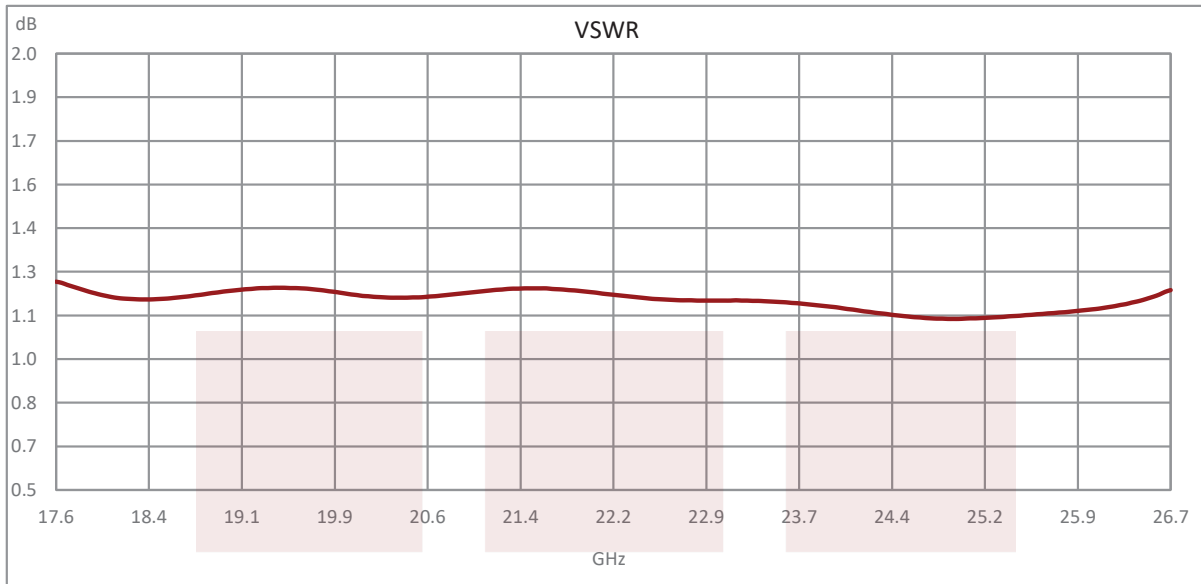
Compliance Certifications (see [product page](#) for current document)

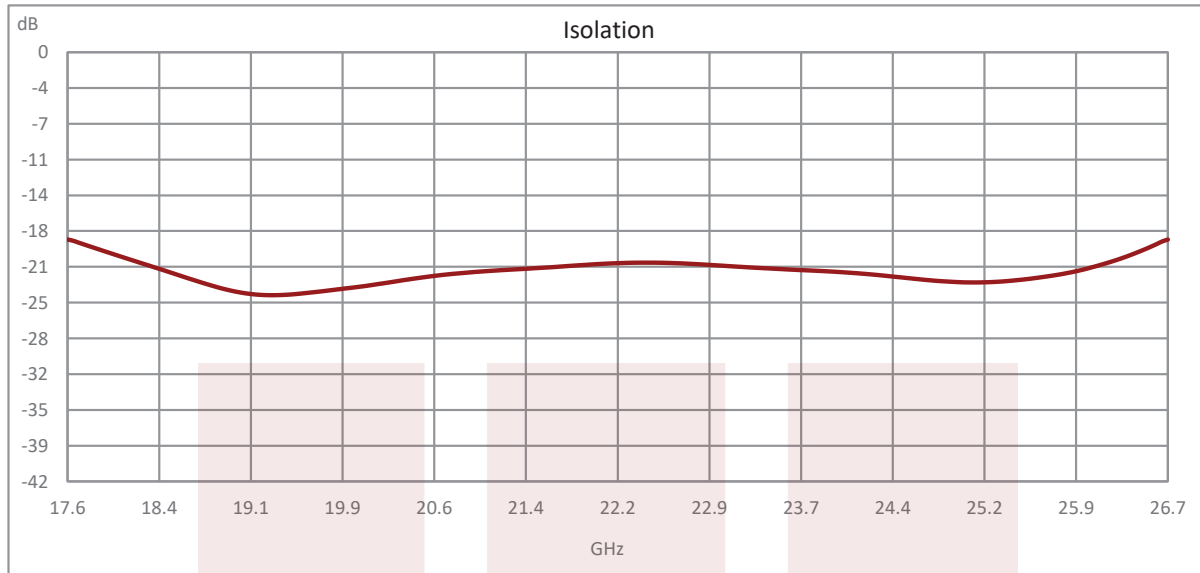
Plotted and Other Data

Notes:

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Typical Performance Data





WR-42 Waveguide Circulator 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 Circulator 18 dB min Isolation from 17.6 GHz to 26.7 GHz using Cover Flange in Aluminum FM-W42CR001](https://www.fairviewmicrowave.com/wr42-waveguide-circulator-18db-26.7-ghz-cover-flange-aluminum-fm-w42cr001-p.aspx)

URL: <https://www.fairviewmicrowave.com/wr42-waveguide-circulator-18db-26.7-ghz-cover-flange-aluminum-fm-w42cr001-p.aspx>

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