

WR-42 Waveguide Circulator with 18 dB Min. Isolation from 18 GHz to 26.5 GHz using Cover Flange in Aluminum

The FMWCR1004 is a Waveguide Circulator offering 18 dB minimum isolation over the full K band frequency range of 18 to 26.5 GHz. The design achieves high isolation with wide band performance and the WR-42 waveguide uses UG-597/U compatible cover flanges on all ports and has a power rating of 5 watts (CW).

Fairview 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:

- Waveguide Circulator
- WR-42
- Full K Band Frequency Range 18 to 26.5 GHz
- Mates with UG-597/U Cover Flange
- 1.3:1 VSWR
- 18 dB isolation across the full band

Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	18		26.5	GHz
VSWR			1.3:1	
Insertion Loss			0.4	dB
Isolation	18			dB
Forward Power (CW)			5	Watts
Input Power (Peak)			1	kWatts

Applications:

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

Mechanical Specifications
Size

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

Environmental Specifications
Temperature

Operating Range	-10 to +65 deg C
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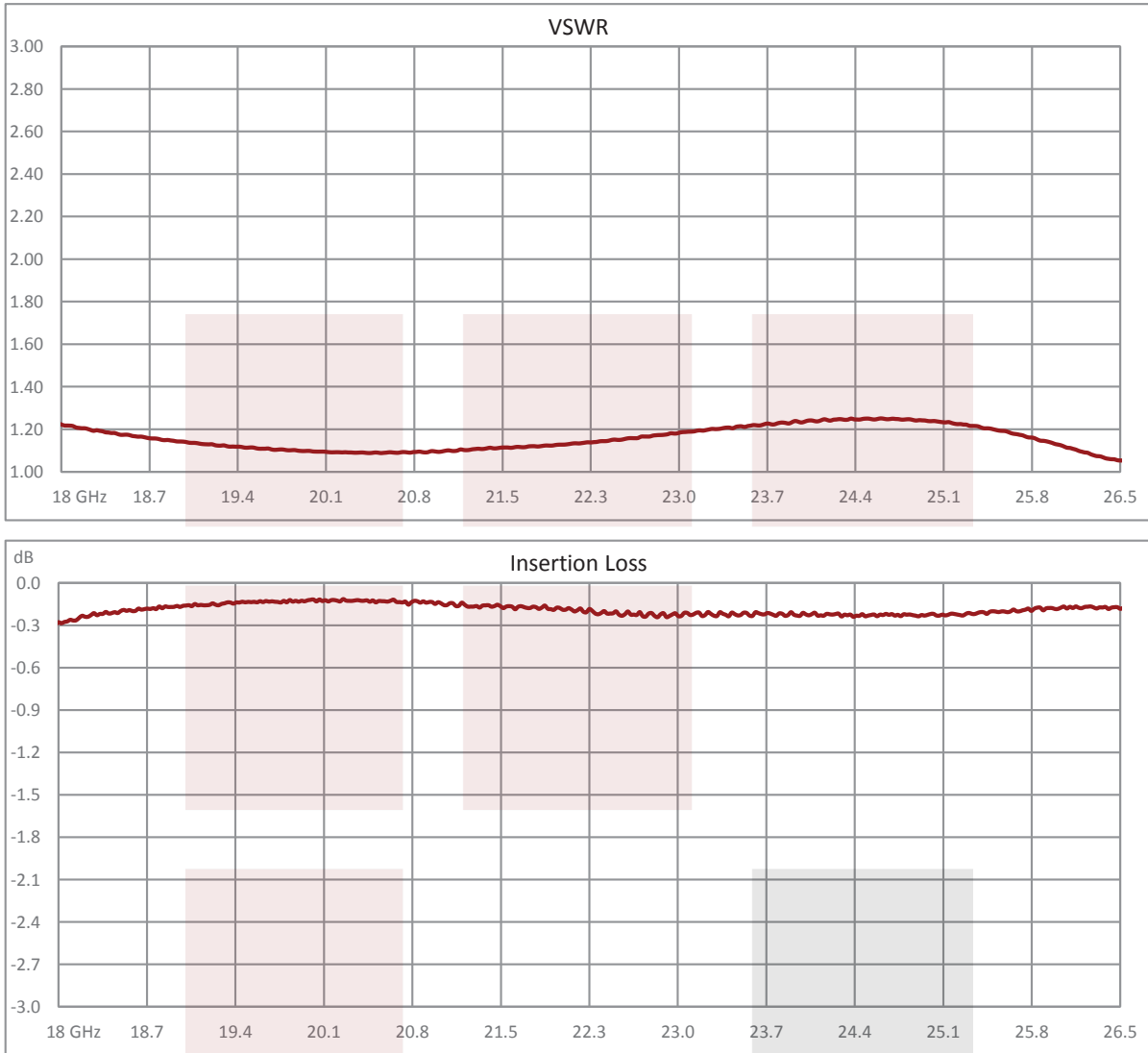
Compliance Certifications (see [product page](#) for current document)

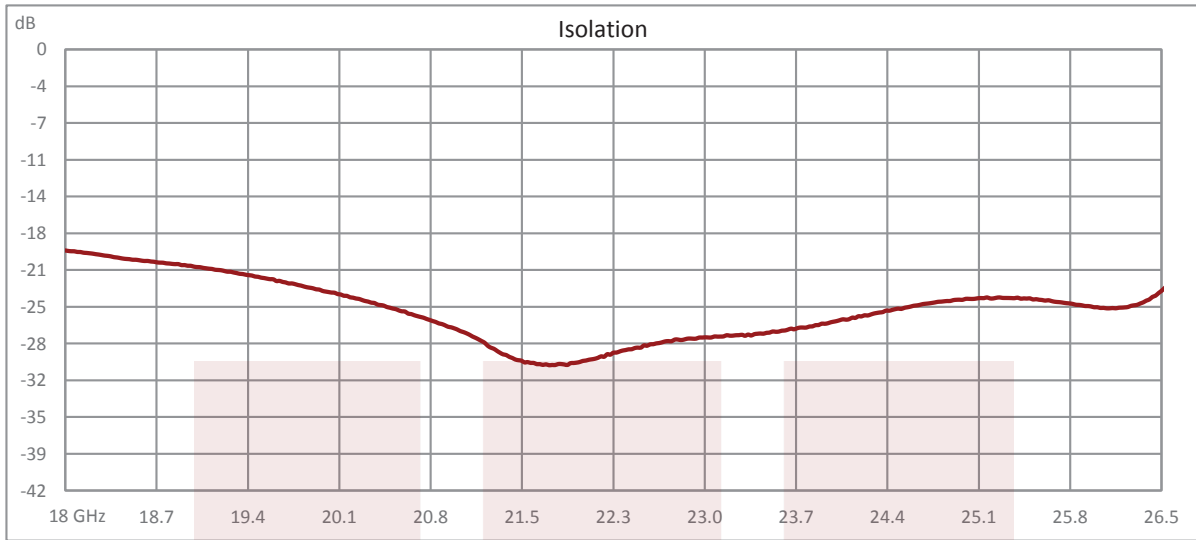
Plotted and Other Data

Notes:

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Typical Performance Data



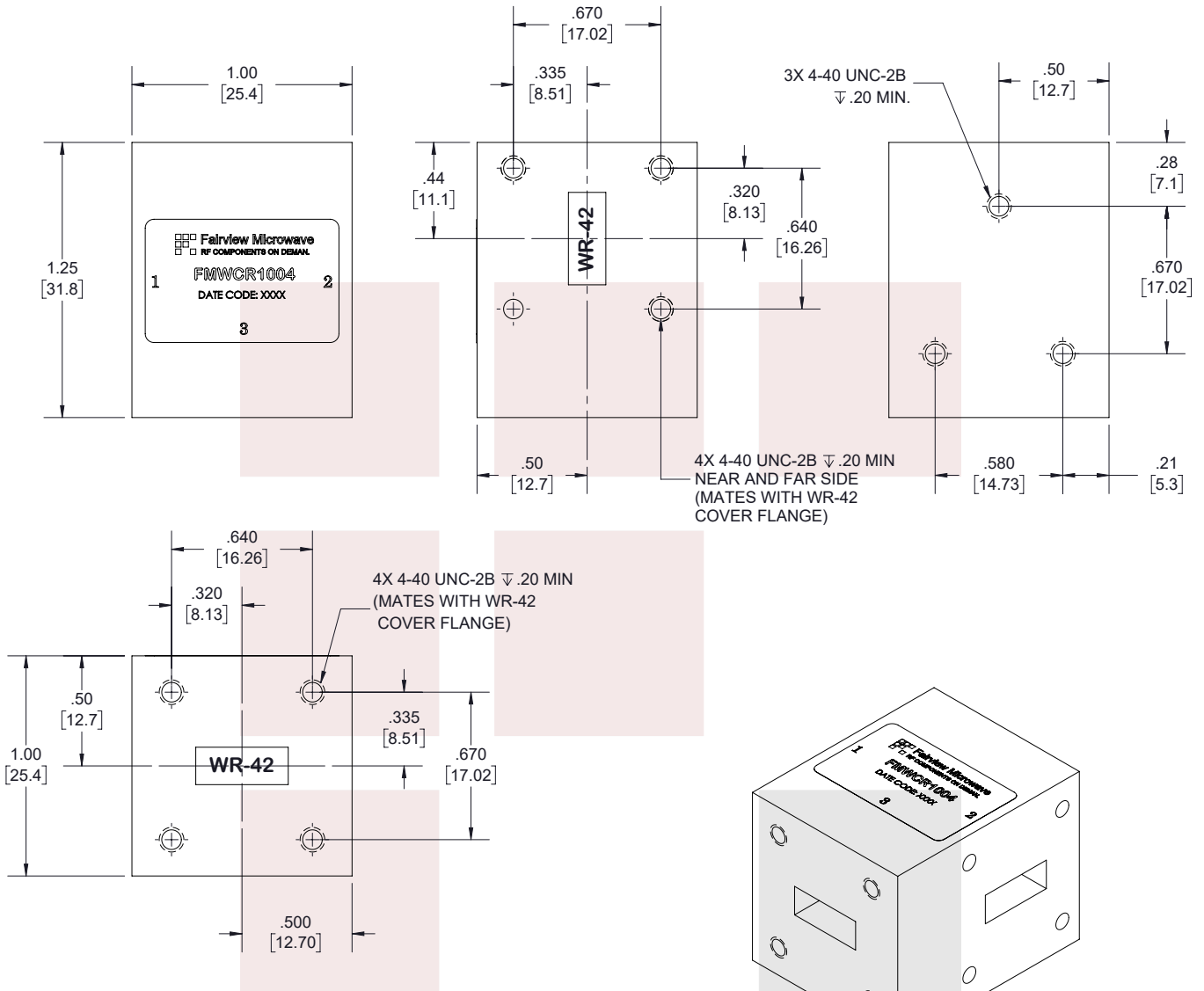


WR-42 Waveguide Circulator with 18 dB Min. Isolation from 18 GHz to 26.5 GHz using Cover Flange in Aluminum from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [WR-42 Waveguide Circulator with 18 dB Min. Isolation from 18 GHz to 26.5 GHz using Cover Flange in Aluminum FMWCR1004](https://www.fairviewmicrowave.com/wr42-waveguide-circulator-18db-26.5-ghz-cover-flange-aluminum-fmw-cr1004-p.aspx)

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STANDARD TOLERANCES	
.X	±0.2
.XX	±0.02
.XXX	±0.010

*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

FAIRVIEW MICROWAVE INC. 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-42 Waveguide Circulator with 18 dB Min. Isolation from 18 GHz to 26.5 GHz using Cover Flange in Aluminum		DWG NO FMWCR1004		CAGE CODE 3FKR5		
CAD FILE	103117	SHEET	1 OF 1	SCALE	N/A	SIZE A 7361