

WR-22 Waveguide Isolator from 33 GHz to 50 GHz, 25 dB Isolation, UG-383/U Round Cover Flange

The FMWIR1004A is a Waveguide Faraday Isolator offering 25 dB isolation over the full Q band frequency range of 33 to 50 GHz. In a conventional isolator design, three or four parts would be needed to cover the full WR-22 band to achieve this level of isolation. The Faraday design achieves high isolation with wide band performance. This gold plated WR-22 waveguide component uses UG-383/U round cover flanges on all ports and has a power rating of 1.5 watts in the forward direction.

Pasternack Enterprises 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. Pasternack's waveguide isolators feature excellent insertion loss, full WR band high isolation and reliability.

Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	33		50	GHz
Insertion Loss		1.3		dB
Isolation		25		dB
VSWR		1.3:1		
Forward Power (CW)			1.5	Watts

Mechanical Specifications

Size

Length	2.79 in [70.87 mm]
Width	1.239 in [31.47 mm]
Height	1.239 in [31.47 mm]
Weight	0.935 lbs [424.11 g]

Configuration

Waveguide Size	WR-22
Flange Designation	UG-383/U
Flange Type	Round Cover
Body Material and Plating	Brass, Gold

Environmental Specifications

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

Plotted and Other Data

Notes:



Features:

- Waveguide Faraday Isolator
- WR-22
- Full Q Band Frequency Range 33 to 50 GHz
- UG-383/U Round Cover Flange
- 1.3:1 VSWR

Applications:

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

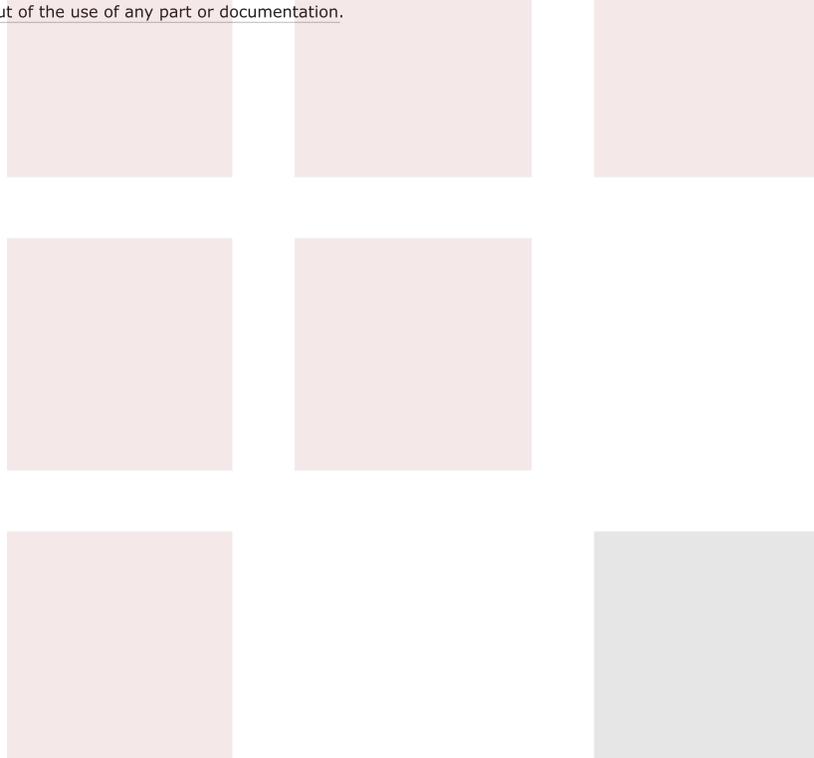
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WR-22 Waveguide Isolator from 33 GHz to 50 GHz, 25 dB Isolation, UG-383/U Round Cover Flange from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

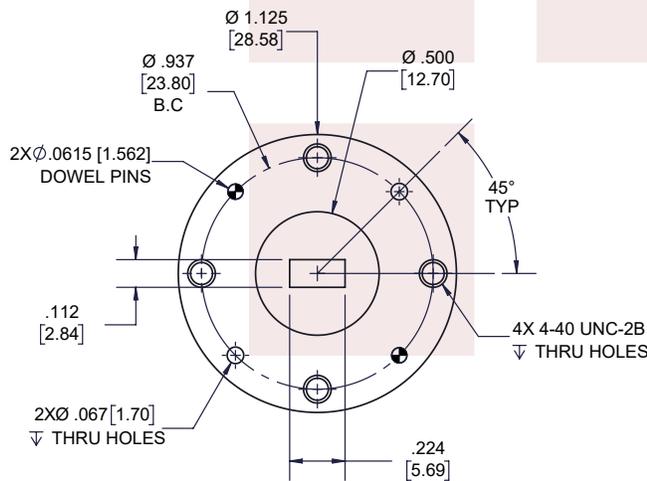
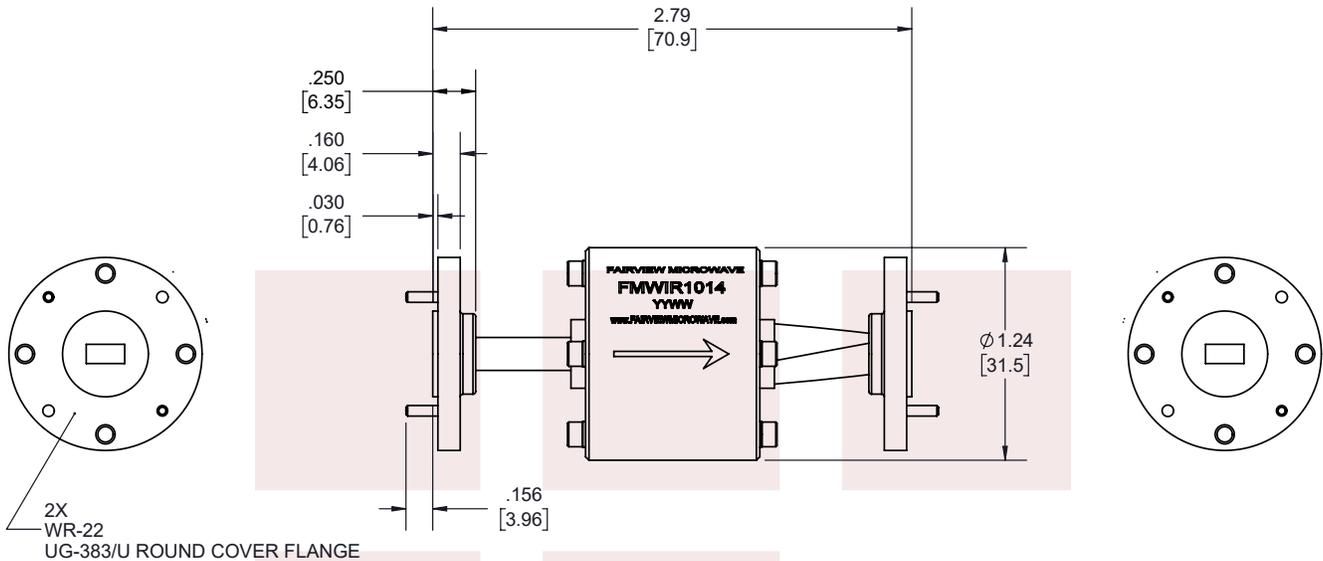
For additional information on this product, please click the following link: [WR-22 Waveguide Isolator from 33 GHz to 50 GHz, 25 dB Isolation, UG-383/U Round Cover Flange FMWIR1004A](#)

URL: <https://www.fairviewmicrowave.com/wr22-waveguide-isolator-25db-50ghz-ug383-fmwir1004a-p.aspx>

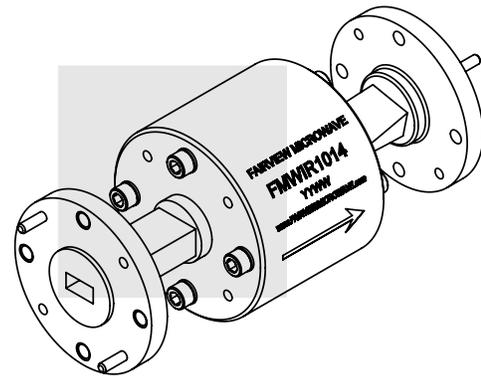
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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	08/30/2022	S. PONG



FLANGE DETAIL



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

TOLERANCES: CABLE LENGTH (L) TOLERANCES:

.X = ±.2 [5.08]	FRACTIONS	L ≤ 12 [305] = +1 [25] / -0
.XX = ±.02 [.51]	± 1/32	12 [305] < L ≤ 60 [1524] = +2 [51] / -0
.XXX = ±.005 [.13]	ANGLES ± 1°	60 [1524] < L ≤ 120 [3048] = +4 [102] / -0
		120 [3048] < L ≤ 300 [7620] = +6 [152] / -0
		300 [7620] < L = +5%L / -0

THIRD-ANGLE PROJECTION



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SHEET 1 OF 1

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

SCALE N/A

SIZE A	CAGE CODE 3FKR5	DRAWN BY K.DANG	ITEM NO. PEWIR1004A	REV A
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