



WR-90 Waveguide Isolator from 8.2 GHz to 12.4 GHz,
 18 dB Typical Isolation, UG-135/U Cover Flange

Waveguide Isolators Technical Data Sheet

PEWIR1007

Features

- Waveguide Isolator
- WR-90
- Full X Band Frequency Range 8.2 to 12.4 GHz
- Mates with UG-135/U Cover Flange
- 1.3:1 VSWR
- 18 dB isolation across the full band

Applications

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

Description

The PEWIR1007 is a Waveguide Isolator offering 18 dB minimum isolation over the full 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-135/U compatible cover flanges on all ports and has a power rating of 20 watts (CW).

Pasternack 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	Minimum	Typical	Maximum	Units
Frequency Range	8.2		12.4	GHz
Circulator				
VSWR		1.3:1		
Insertion Loss		0.4		dB
Isolation		18		dB
Forward Power (CW)			20	Watts
Input Power (Peak)			10	KWatts
Termination				
VSWR			1.05:1	
Input Power (CW)			2	Watts

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [WR-90 Waveguide Isolator from 8.2 GHz to 12.4 GHz, 18 dB Typical Isolation, UG-135/U Cover Flange PEWIR1007](#)



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Mechanical Specifications
Size

Configuration

Waveguide Size	WR-90
Flange Designation	UG-135/U
Flange Type	Cover
Body Material and Plating	Aluminum

Environmental Specifications

Temperature

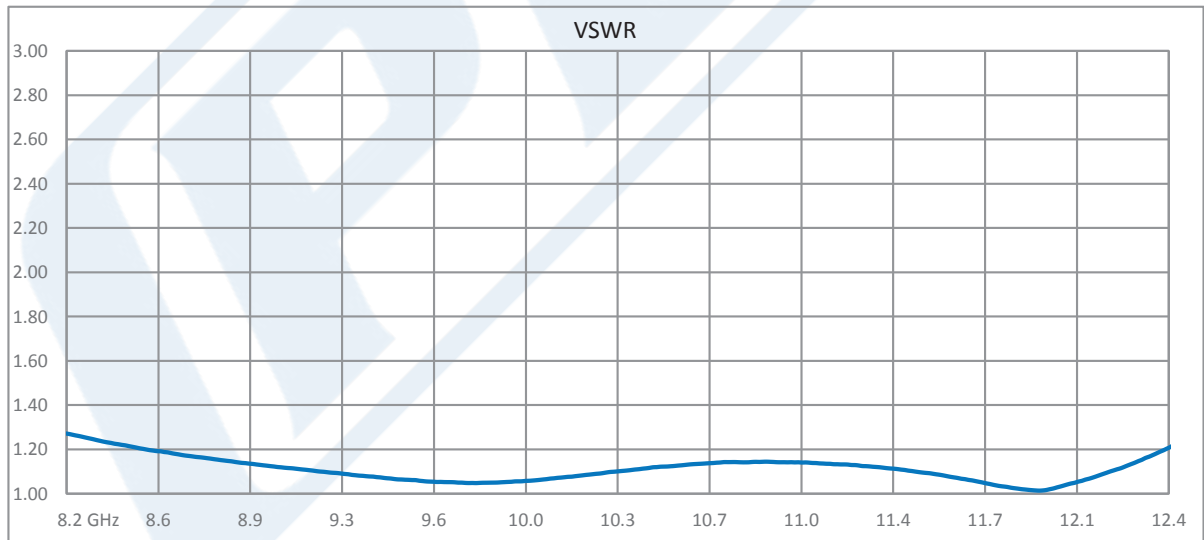
Operating Range	-10 to 65 deg C
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Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:

Typical Performance Data



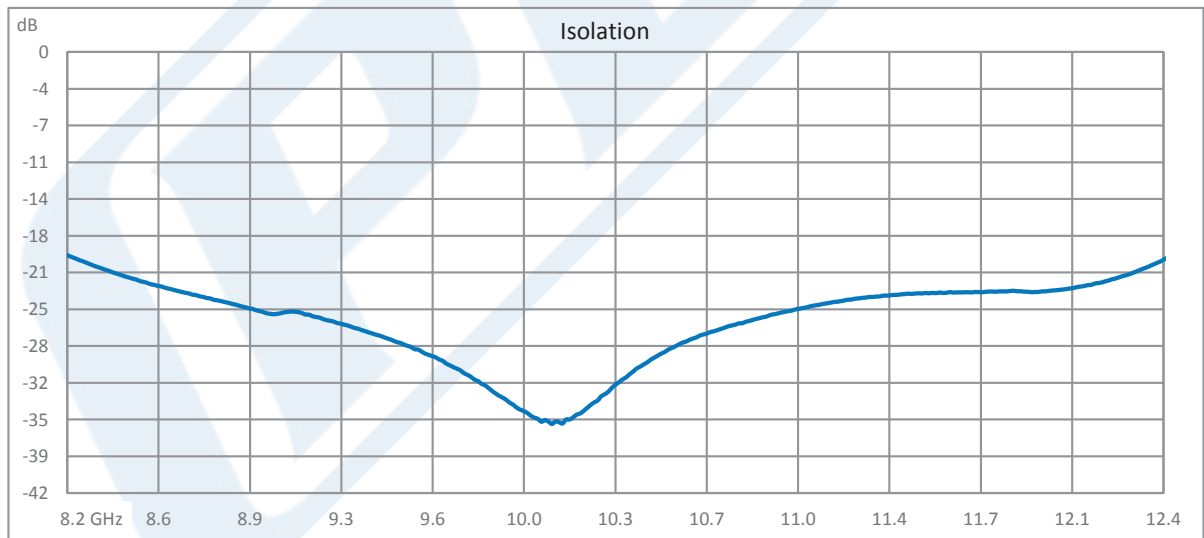
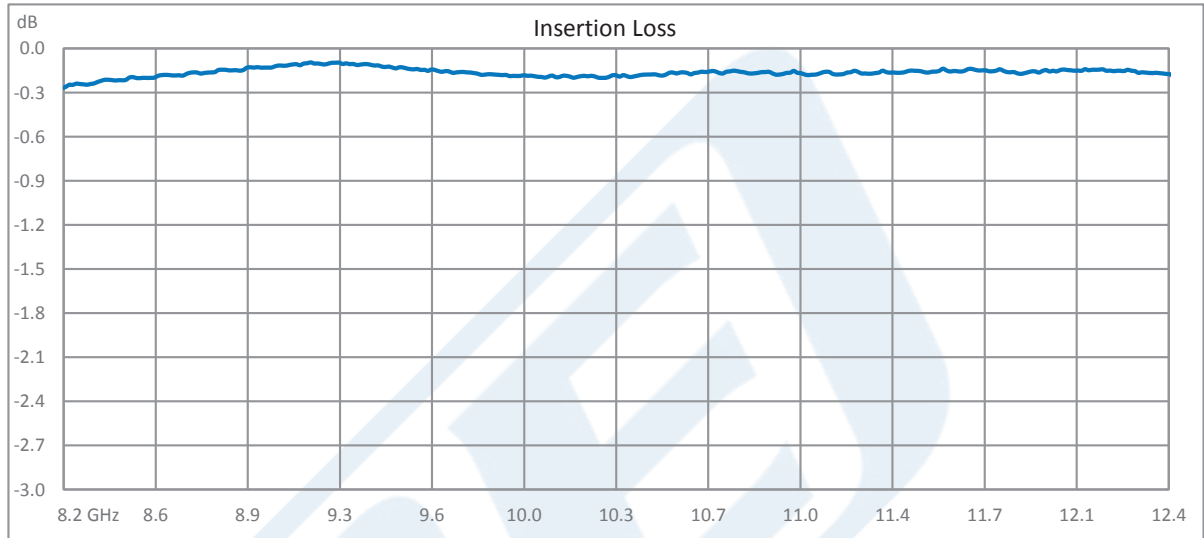
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WR-90 Waveguide Isolator from 8.2 GHz to 12.4 GHz, 18 dB Typical Isolation, UG-135/U Cover Flange from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

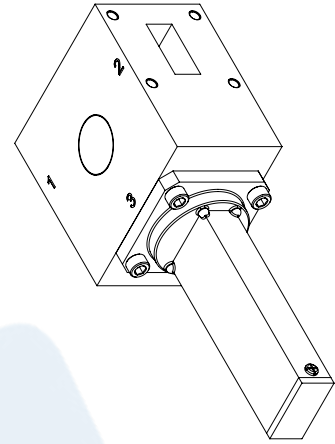
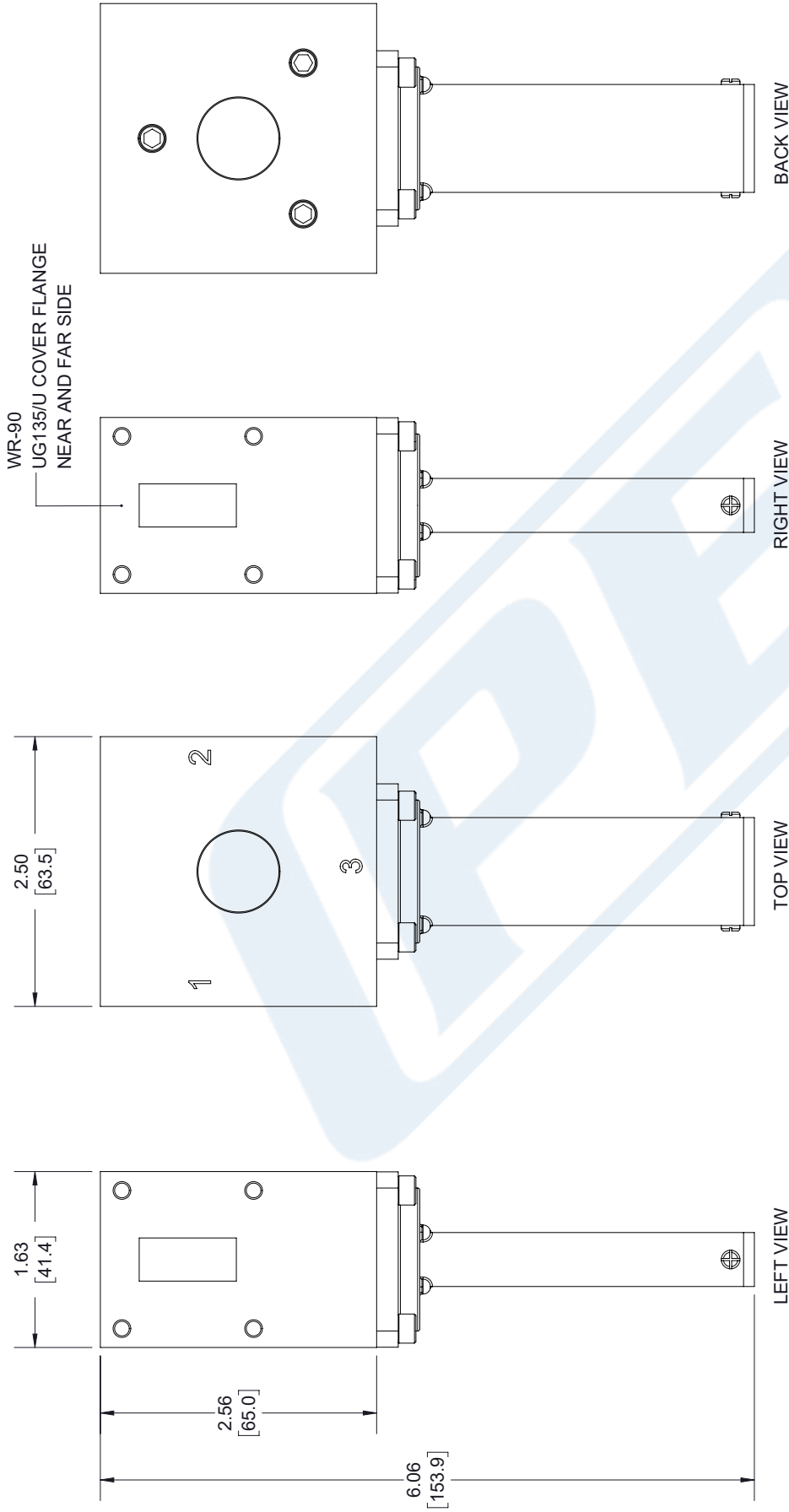
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [WR-90 Waveguide Isolator from 8.2 GHz to 12.4 GHz, 18 dB Typical Isolation, UG-135/U Cover Flange PEWIR1007](https://www.pasternack.com/wr90-waveguide-isolator-12.4ghz-18db-ug135-pewir1007-p.aspx)

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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. Pasternack reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack does not assume any liability arising out of the use of any part or documentation.

PEWIR1007 CAD Drawing

WR-90 Waveguide Isolator from 8.2 GHz to 12.4 GHz, 18 dB
Typical Isolation, UG-135/U Cover Flange



STANDARD TOLERANCES	
.X	±0.2
.XX	±0.01
.XXX	±0.005

*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

<p>NOTES:</p> <ol style="list-style-type: none"> UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME. DIMENSIONS ARE IN INCHES [mm]. 	DWG TITLE	PEWIR1007
	CAGE CODE	53919
CAD FILE	032118	SCALE N/A
	SIZE	A
		7361

PASTERNAK
THE ENGINEER'S RF SOURCE
Pasternack Enterprises, Inc.
P.O. Box 16759 | Irvine | CA | 92623
Phone: (949) 261-1920 | Fax: (949) 261-7451
Website: www.pasternack.com | E-Mail: sales@pasternack.com