



WR-15 Waveguide Isolator from 50 GHz to 75 GHz,  
 25 dB min Isolation, UG-385/U Round Cover Flange

## Waveguide Isolators Technical Data Sheet

PEWIR1002

### Features

- Waveguide Faraday Isolator
- WR-15
- Full V Band Frequency Range 50 to 75 GHz
- UG-385/U Round Cover Flange
- 1.4:1 VSWR

### Applications

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

### Description

The PEWIR1002 is a Waveguide Faraday Isolator offering 25 dB minimum isolation over the full V band frequency range of 50 to 75 GHz. In a conventional isolator design, three or four parts would be needed to cover the full WR-15 band to achieve this level of isolation. The Faraday design achieves high isolation with wide band performance. This gold plated WR-15 waveguide component uses UG-385/U round cover flanges on all ports and has a power rating of 1 watt 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	Minimum	Typical	Maximum	Units
Frequency Range	50		75	GHz
Insertion Loss			1.8	dB
Isolation	25	30		dB
VSWR			1.4:1	
Forward Power, CW			1	Watts

### Mechanical Specifications

#### Size

Length	2.5 in [63.5 mm]
Height	0.94 in [23.88 mm]

#### Configuration

Design	Faraday
Waveguide Size	WR-15
Flange Designation	UG-385/U
Flange Type	Round Cover

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [WR-15 Waveguide Isolator from 50 GHz to 75 GHz, 25 dB min Isolation, UG-385/U Round Cover Flange PEWIR1002](#)



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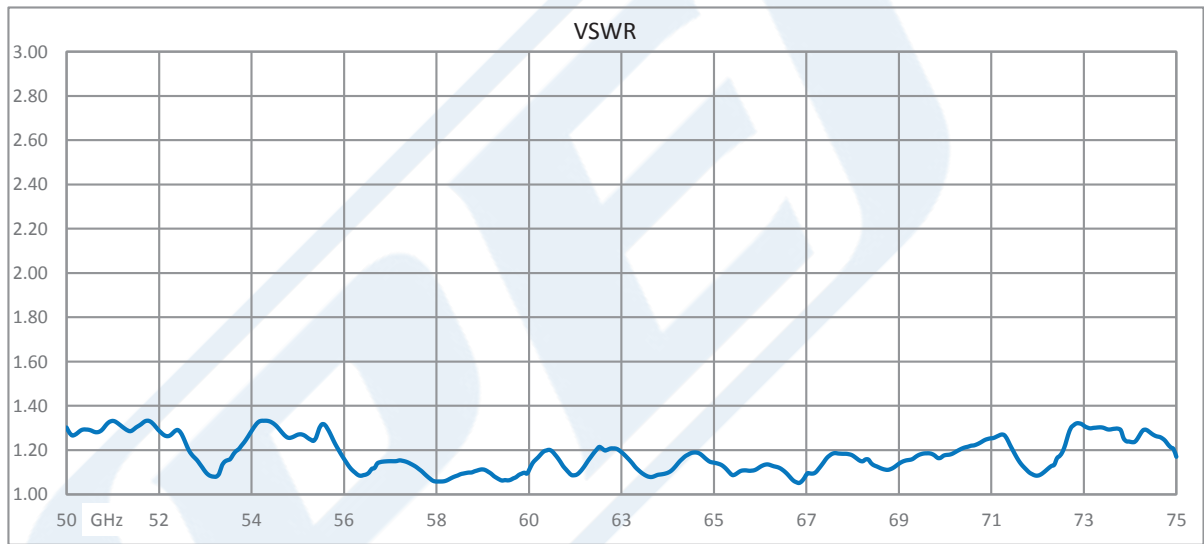
### Environmental Specifications

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

### Plotted and Other Data

Notes:

### Typical Performance Data



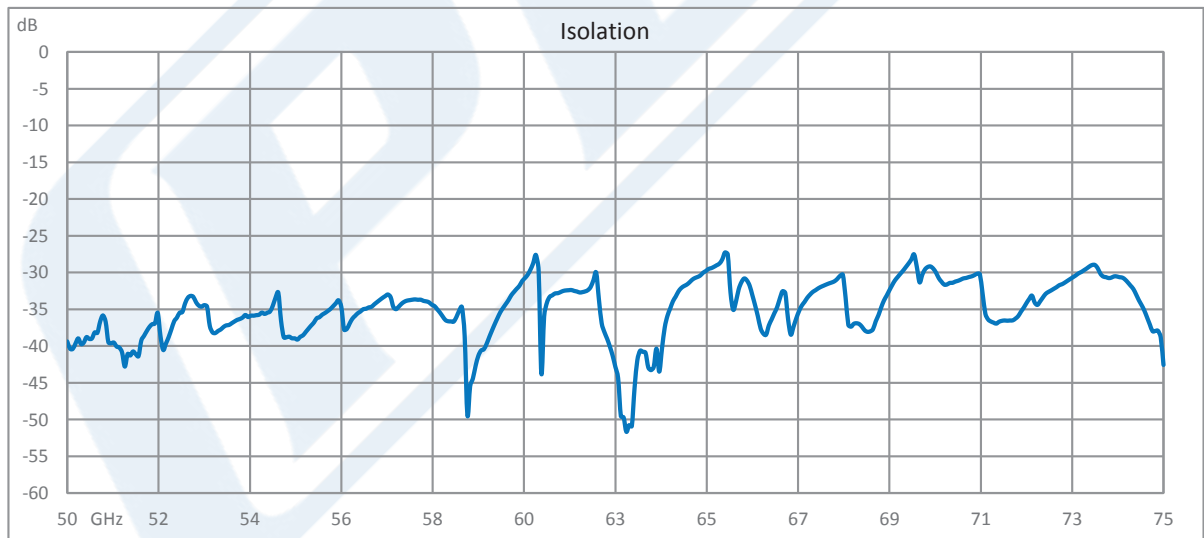
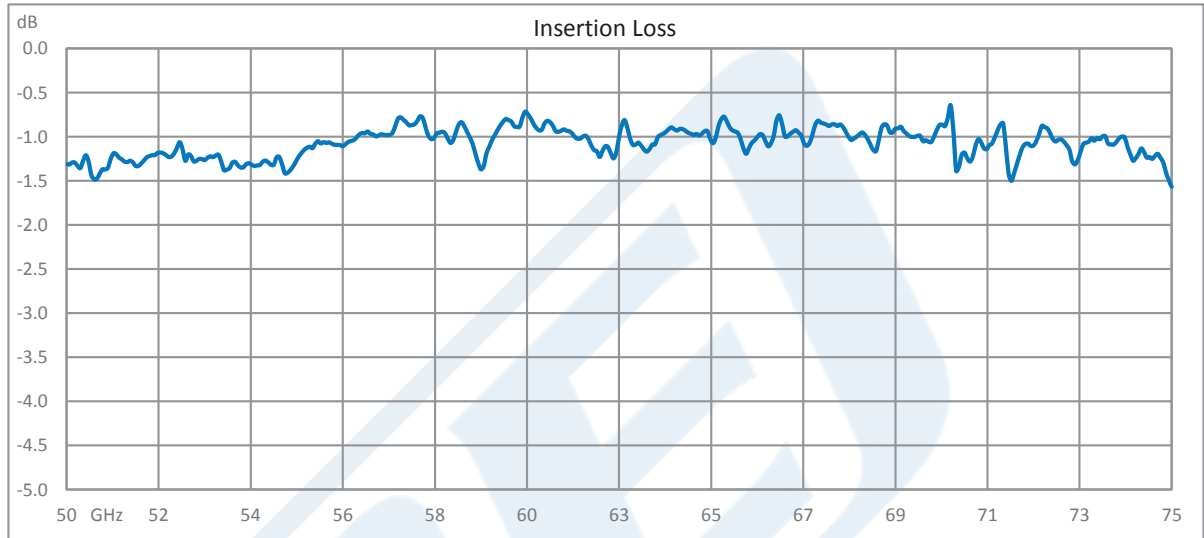
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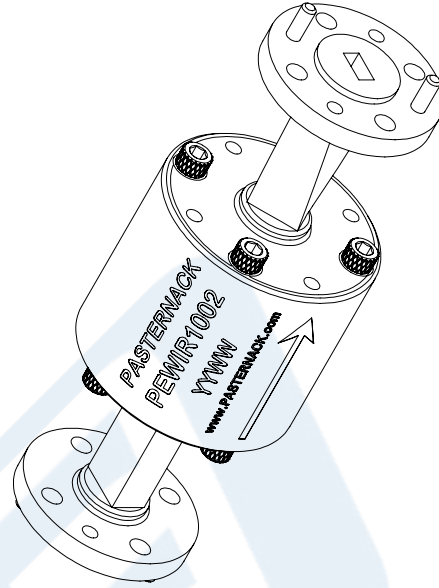
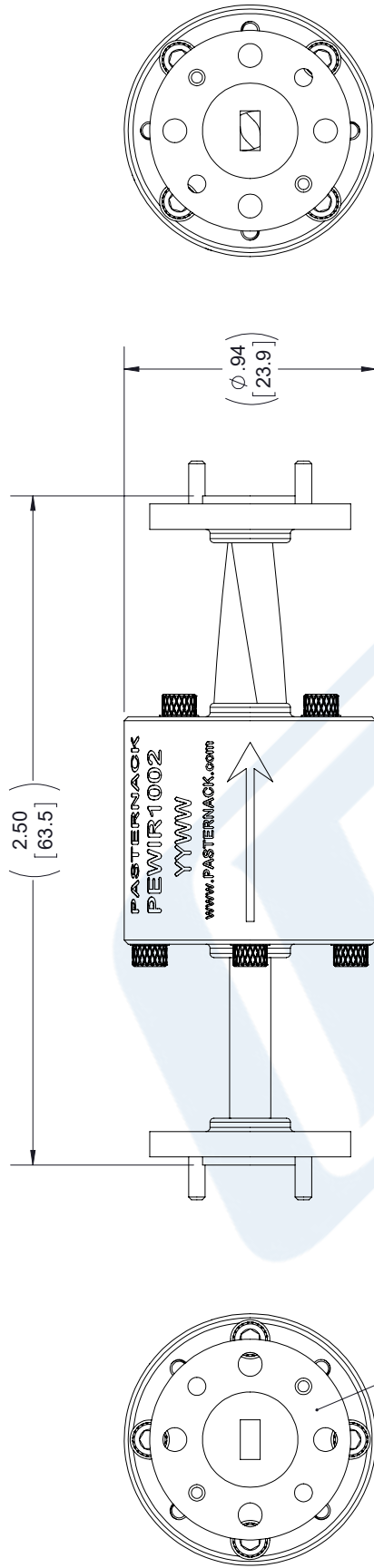
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# PEWIR1002 CAD Drawing

WR-15 Waveguide Isolator from 50 GHz to 75 GHz, 25 dB  
min Isolation, UG-385/U Round Cover Flange



### STANDARD TOLERANCES

.X ±0.2  
.XX ±0.01  
.XXX ±0.005

\*STANDARD TOLERANCES APPLY  
ONLY TO DIMENSIONS IN INCHES



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DWG TITLE

PEWIR1002

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].

CAGE CODE 53919

CAD FILE 100517

SCALE N/A

SIZE A

7361