



WR-12 Waveguide Isolator from 64.5 GHz to 66.5 GHz,  
15 dB min Isolation, UG-387/U Cover Flange, Brass

## Waveguide Isolators Technical Data Sheet

**PE-W12IR001**

### Features

- WR-12 Waveguide Isolator
- E Band Frequency Range 64.5 to 66.5 GHz
- UG-387/U Flange Configuration
- Maximum VSWR 1.4:1
- Minimum 15 dB isolation
- Maximum Forward Power 2 W (CW)

### Applications

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

### Description

The PE-W12IR001 is a Waveguide Isolator offering 15 dB minimum isolation over the E band frequency range of 64.5 to 66.5 GHz. The design achieves high isolation with wide band performance and the WR-12 waveguide uses UG-387/U Cover compatible flanges on all ports and has a power rating of 2 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	64.5		66.5	GHz
Insertion Loss			0.8	dB
Isolation	15			dB
VSWR			1.4:1	
Forward Power (CW)			2	Watts
Forward Power (Peak)			20	Watts
Reverse Power (CW)			0.2	Watts
Reverse Power (Peak)			2	Watts

### Mechanical Specifications

Size	
Length	1 in [25.4 mm]
Width	0.94 in [23.88 mm]
Height	0.79 in [20.07 mm]
Weight	0.1 lbs [45.36 g]

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [WR-12 Waveguide Isolator from 64.5 GHz to 66.5 GHz, 15 dB min Isolation, UG-387/U Cover Flange, Brass PE-W12IR001](#)



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### Configuration

Waveguide Size	WR-12
Flange Designation	UG-387/U
Flange Type	Cover
Body Material and Plating	Brass, Gold

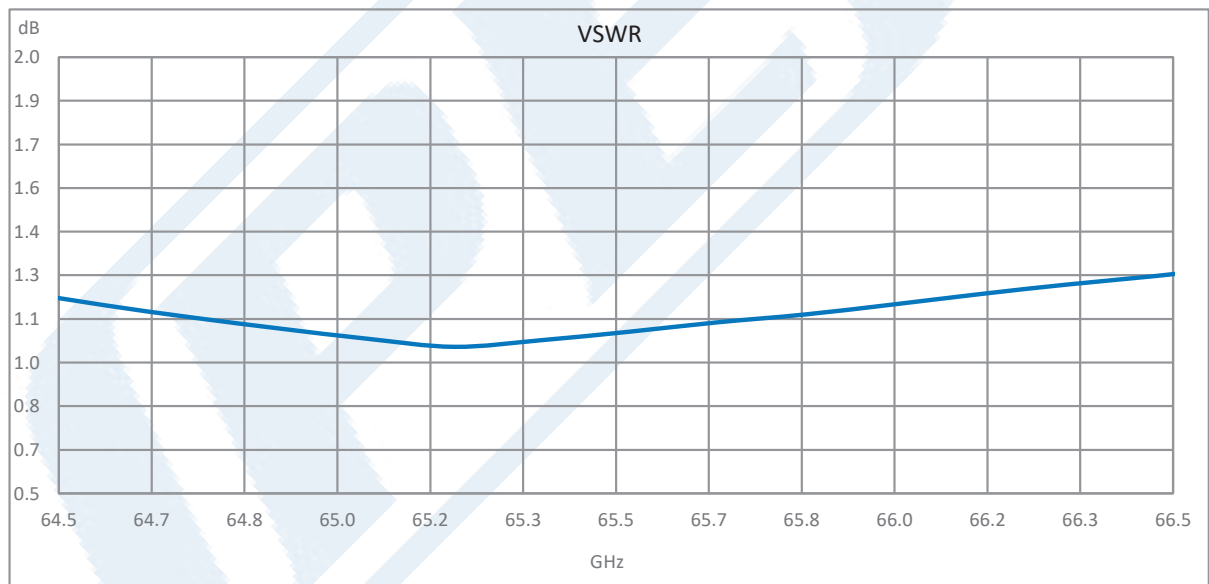
### Environmental Specifications

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

### Plotted and Other Data

Notes:

#### Typical Performance Data



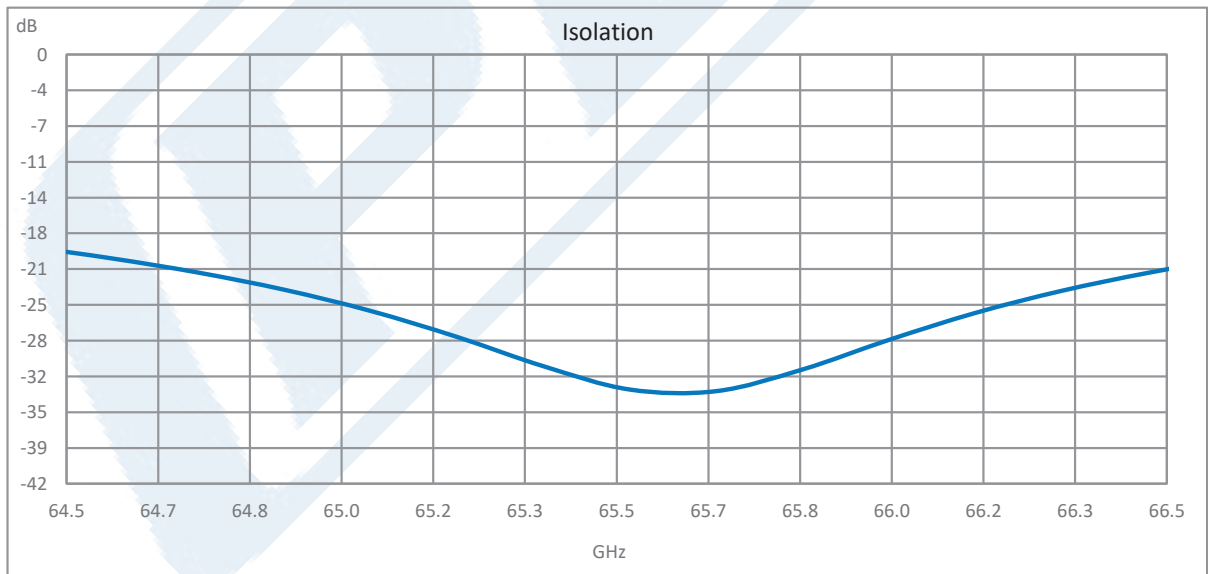
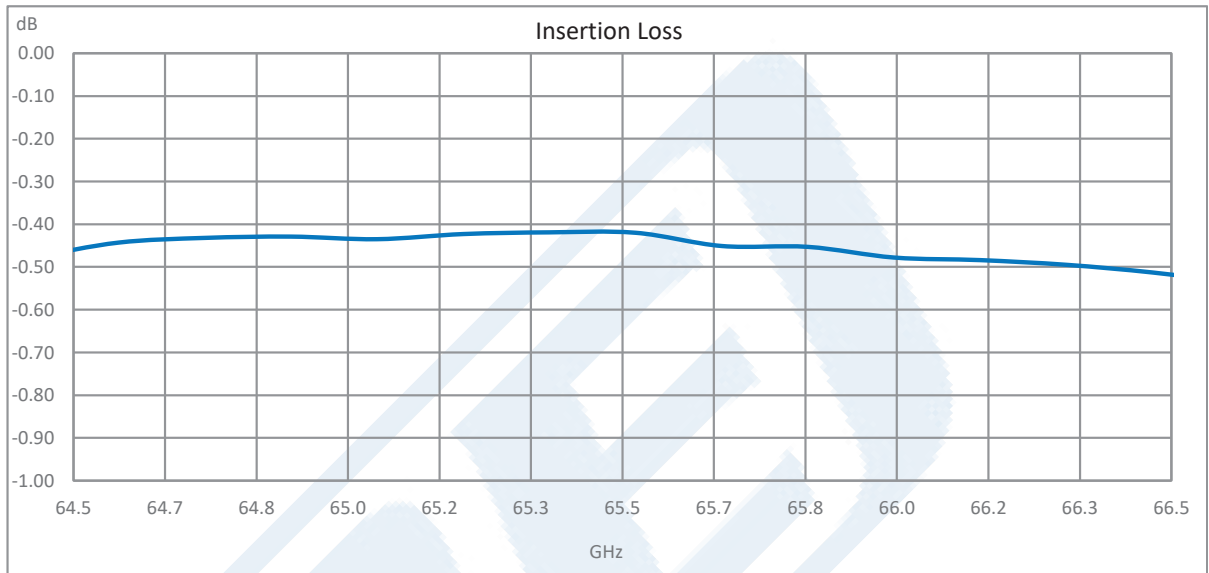
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WR-12 Waveguide Isolator from 64.5 GHz to 66.5 GHz, 15 dB min Isolation, UG-387/U Cover Flange, Brass from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 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-12 Waveguide Isolator from 64.5 GHz to 66.5 GHz, 15 dB min Isolation, UG-387/U Cover Flange, Brass PE-W12IR001](https://www.pasternack.com/-waveguide-isolator-66.5ghz-15db-ug387-pe-w12ir001-p.aspx)

URL: <https://www.pasternack.com/-waveguide-isolator-66.5ghz-15db-ug387-pe-w12ir001-p.aspx>

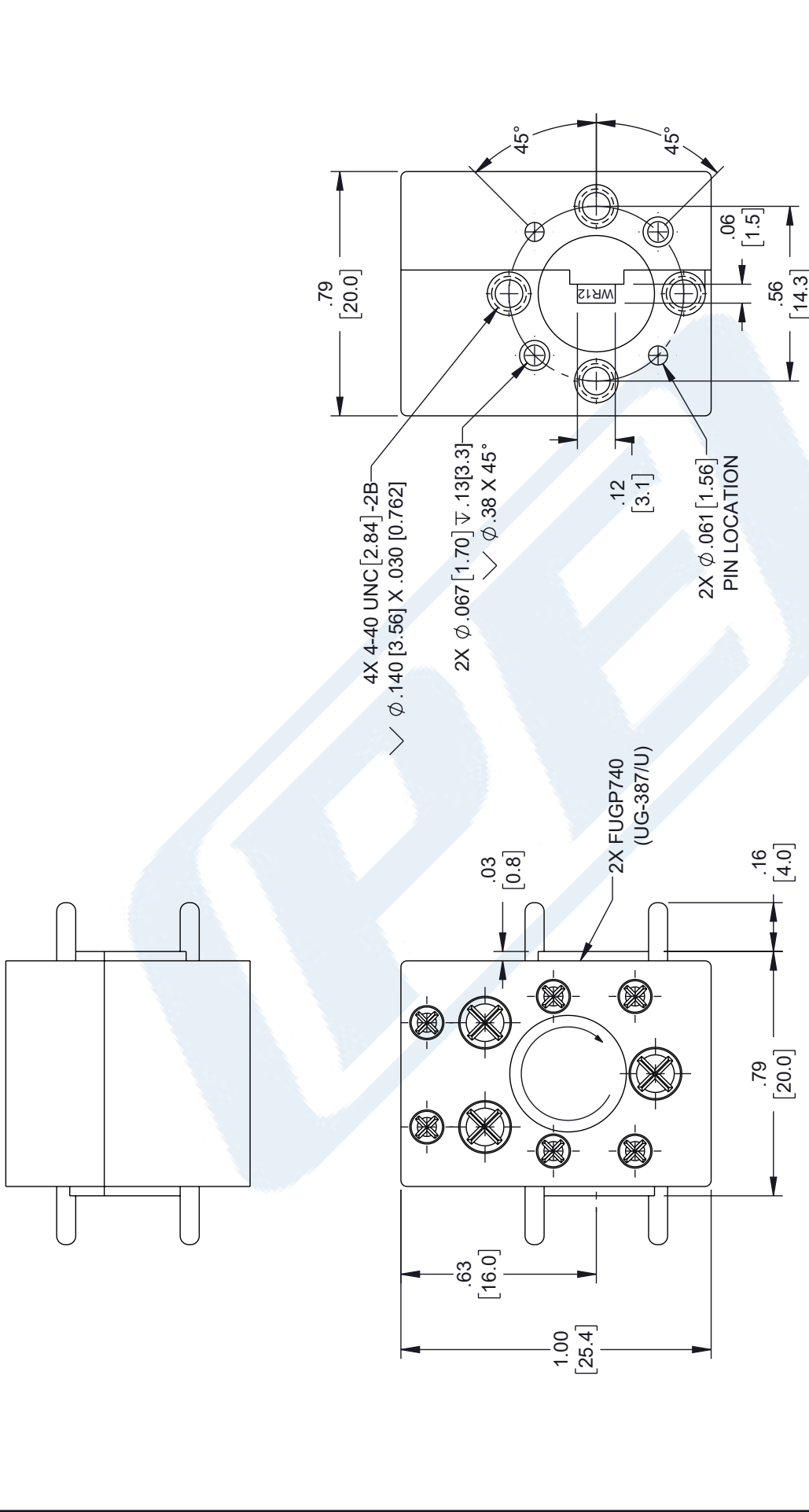
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# PE-W12IR001 CAD Drawing

WR-12 Waveguide Isolator from 64.5 GHz to 66.5 GHz, 15 dB min Isolation, UG-387/U Cover Flange, Brass

ZONE	REV	DESCRIPTION	DATE	CHANGED BY	APPROVED
	A	INITIAL RELEASE	02/27/2023	DMAY	SPONG

REVISION	
1	
2	
3	
4	
5	
6	



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

TOLERANCES:

X = ±.2 [5] FRACTIONS  
 .XX = ±.02 [.5] ± 1/32  
 .XXX = ±.005 [.13] ANGLES ± 1°

CABLE LENGTH TOLERANCES:

≤ 12 [305] = +1 [25] / -0  
 > 12 [305] ≤ 60 [1524] = +2 [51] / -0  
 > 60 [1524] ≤ 120 [3048] = +4 [102] / -0  
 > 120 [3048] ≤ 300 [7620] = +6 [152] / -0  
 > 300 [7620] = +5% / -0

ALL DIMENSIONS ARE FOR REFERENCE ONLY AND SUBJECT TO CHANGE WITHOUT NOTICE

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 Phone: 1.866.727.8376 | 1.949.261.1920

SCALE NONE SHEET 1 OF 1

DESCRIPTION  
 WR-12 WAVEGUIDE ISOLATOR, 64.5-66.5GHZ

SIZE	CAGE CODE	DRAWN BY	ITEM NO.
A	53919	DMAY	PE-W12IR001

REV A

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