



WR-12 Waveguide Isolator from 76 GHz to 78 GHz,
15 dB min Isolation, UG-387/U Cover Flange, Brass

Waveguide Isolators Technical Data Sheet

PE-W12IR002

Features

- WR-12 Waveguide Isolator
- E Band Frequency Range 76 to 78 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-W12IR002 is a Waveguide Isolator offering 15 dB minimum isolation over the E band frequency range of 76 to 78 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	76		78	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 76 GHz to 78 GHz, 15 dB min Isolation, UG-387/U Cover Flange, Brass PE-W12IR002](#)



WR-12 Waveguide Isolator from 76 GHz to 78 GHz,
15 dB min Isolation, UG-387/U Cover Flange, Brass

Waveguide Isolators Technical Data Sheet

PE-W12IR002

Configuration

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

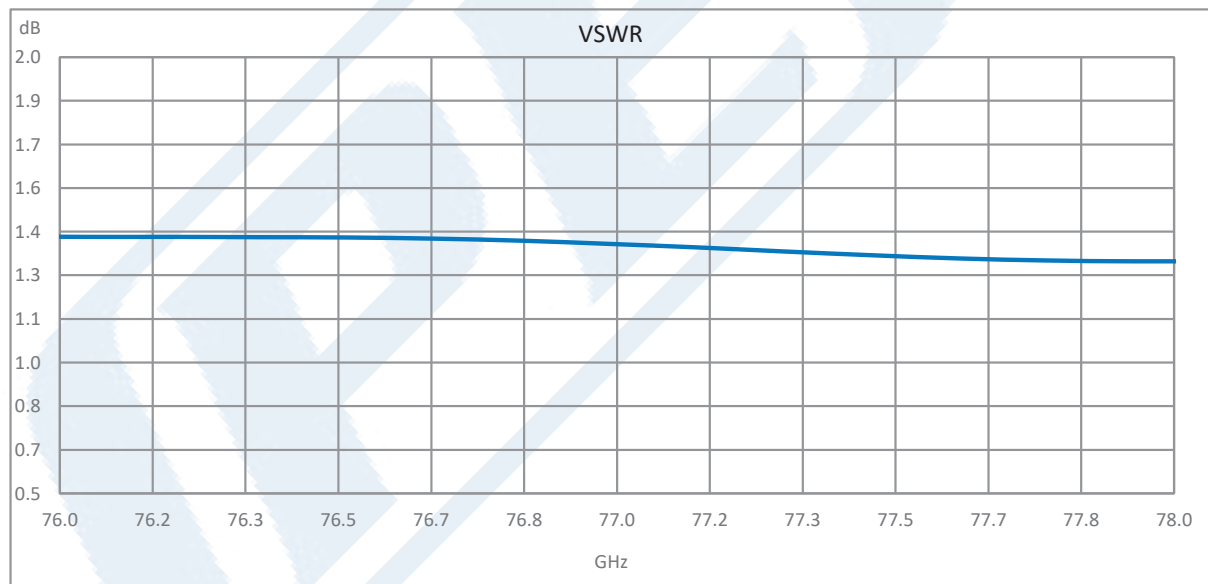
Environmental Specifications

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

Plotted and Other Data

Notes:

Typical Performance Data



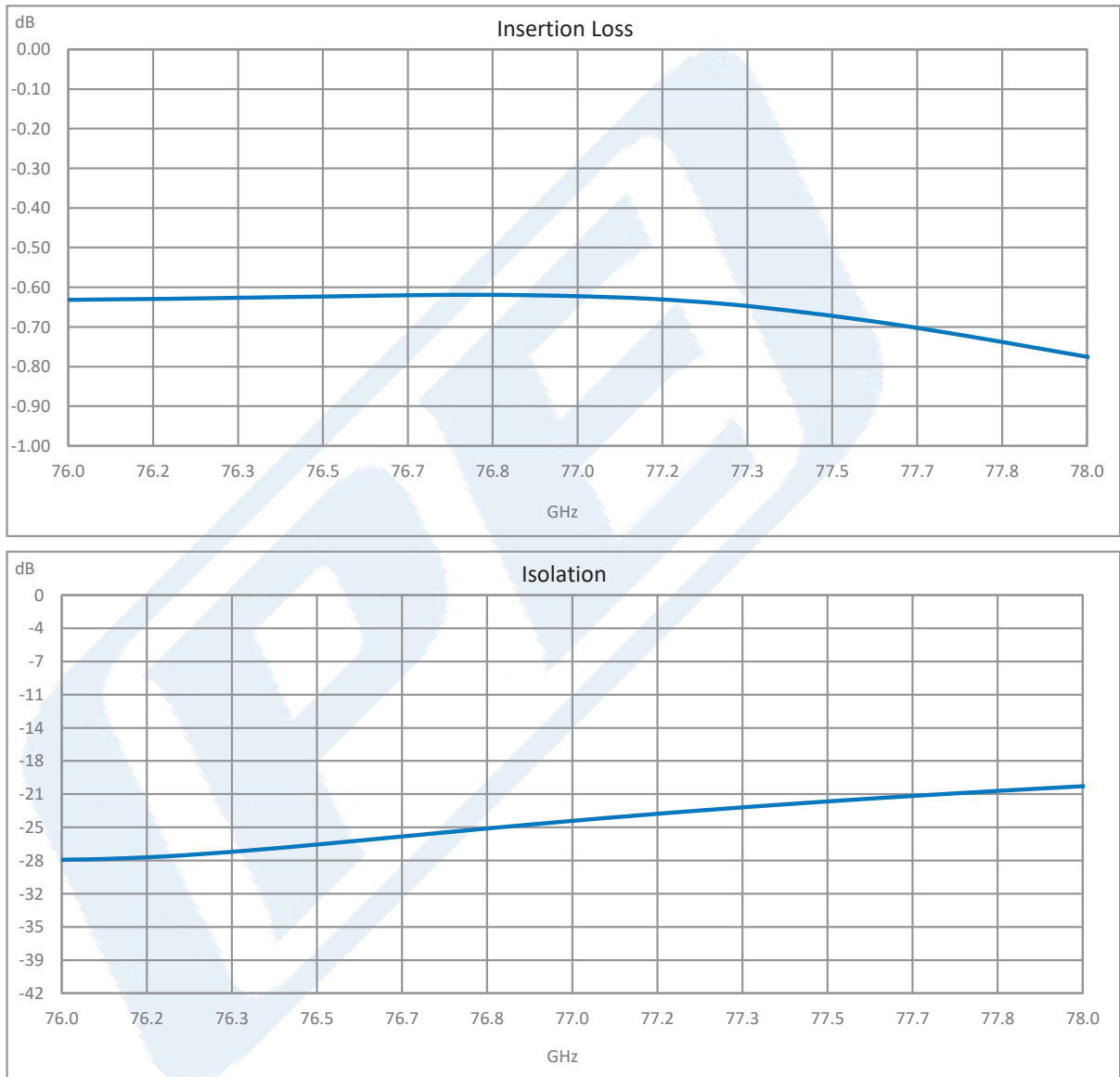
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [WR-12 Waveguide Isolator from 76 GHz to 78 GHz, 15 dB min Isolation, UG-387/U Cover Flange, Brass PE-W12IR002](#)



WR-12 Waveguide Isolator from 76 GHz to 78 GHz,
15 dB min Isolation, UG-387/U Cover Flange, Brass

Waveguide Isolators Technical Data Sheet

PE-W12IR002



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 76 GHz to 78 GHz, 15 dB min Isolation, UG-387/U Cover Flange, Brass PE-W12IR002](#)



WR-12 Waveguide Isolator from 76 GHz to 78 GHz,
15 dB min Isolation, UG-387/U Cover Flange, Brass

Waveguide Isolators Technical Data Sheet

PE-W12IR002

WR-12 Waveguide Isolator from 76 GHz to 78 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.

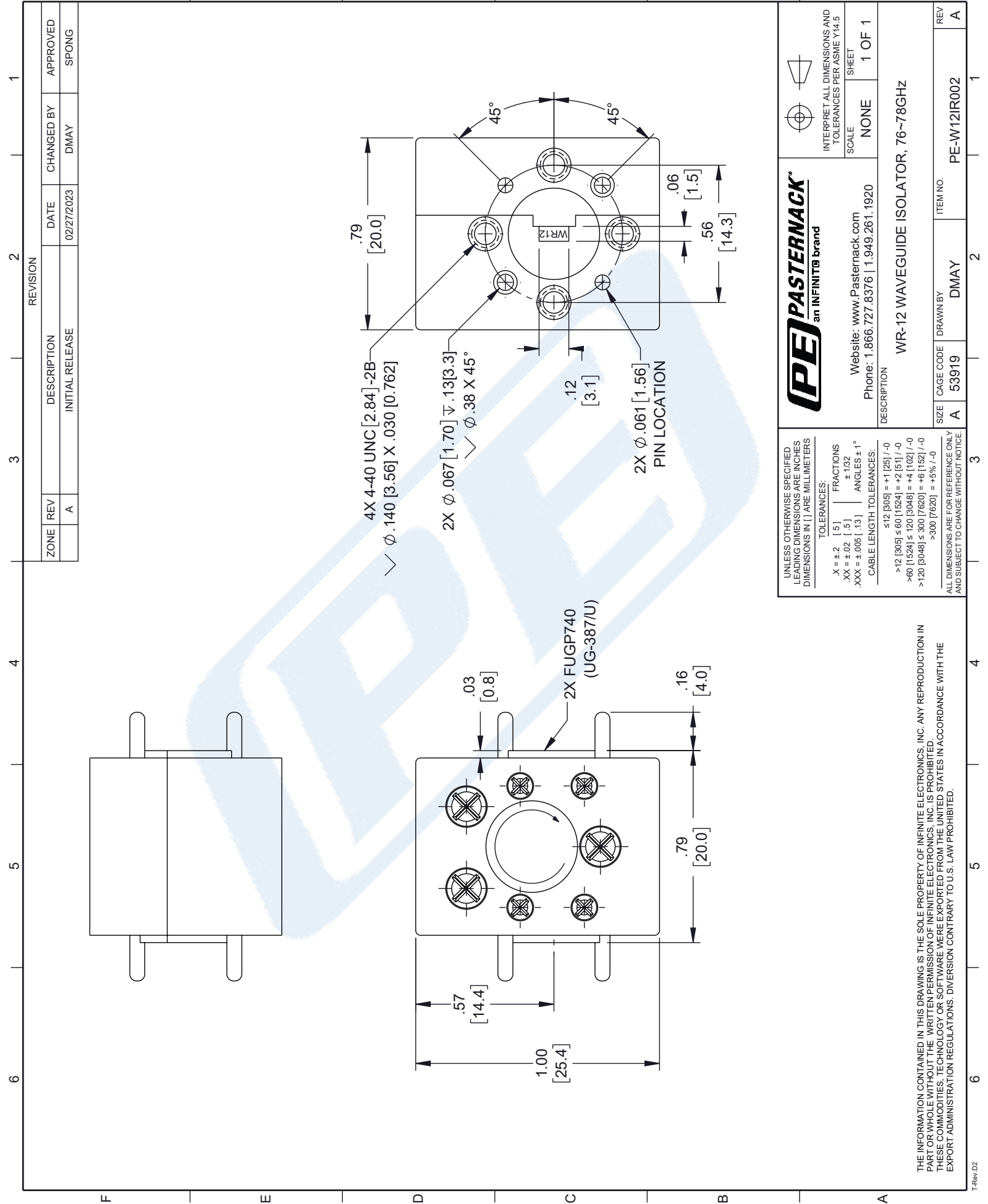
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [WR-12 Waveguide Isolator from 76 GHz to 78 GHz, 15 dB min Isolation, UG-387/U Cover Flange, Brass PE-W12IR002](https://www.pasternack.com/-waveguide-isolator-78ghz-15db-ug387-pe-w12ir002-p.aspx)

URL: <https://www.pasternack.com/-waveguide-isolator-78ghz-15db-ug387-pe-w12ir002-p.aspx>

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.

PE-W12IR002 CAD Drawing

WR-12 Waveguide Isolator from 76 GHz to 78 GHz, 15 dB min Isolation, UG-387/U Cover Flange, Brass



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

PE PASTERNAK
an INFINITI® brand

Website: www.Pasternack.com
Phone: 1.866.727.8376 | 1.949.261.1920

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

INTERPRET ALL DIMENSIONS AND
TOLERANCES PER ASME Y14.5

SCALE NONE

SHEET 1 OF 1

DESCRIPTION

WR-12 WAVEGUIDE ISOLATOR, 76-78GHZ

SIZE A

CAGE CODE 53919

DRAWN BY DMAY

ITEM NO. PE-W12IR002

REV A

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF INFINITE ELECTRONICS, INC. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF INFINITE ELECTRONICS, INC. IS PROHIBITED. THESE COMMODITIES, TECHNOLOGY OR SOFTWARE WERE EXPORTED FROM THE UNITED STATES IN ACCORDANCE WITH THE EXPORT ADMINISTRATION REGULATIONS. DIVERSION CONTRARY TO U.S. LAW PROHIBITED.