



Isolator with 14 dB Isolation from 18 GHz to 26.5 GHz,  
Hermetically Sealed, 10 Watts and 2.92mm Female

## Isolators Technical Data Sheet

PE83IR1041

### Features

- Forward Power 10 watts
- Wide-Band Operating of 18 to 26.5 GHz
- Female 2.92mm Connectors
- Low VSWR of 1.70:1 Max
- Low Insertion Loss of 1.7 dB Max
- Good Isolation Performance of 14 dB Minimum
- Hermetically Sealed

### Applications

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

### Description

The PE83IR1041 is an RF isolator offering a forward power rating of 10 watts over an operational frequency band of 18 to 26.5 GHz. This coaxial part uses 2.92mm female connectors on all ports and has a minimum of 14 dB of isolation.

Pasternack Enterprises offers a wide variety of 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 isolators feature excellent insertion loss, high isolation and reliability.

### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	18		26.5	GHz
Impedance		50		Ohms
Insertion Loss			1.7	dB
Isolation	14			dB
VSWR			1.7:1	
Forward Power, CW			10	Watts

### Mechanical Specifications

<b>Size</b>	
Length	1.06 in [26.92 mm]
Width	0.67 in [17.02 mm]
Height	0.43 in [10.92 mm]
Weight	0.044 lbs [19.96 g]
Body Material and Plating	Aluminum

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Isolator with 14 dB Isolation from 18 GHz to 26.5 GHz, Hermetically Sealed, 10 Watts and 2.92mm Female PE83IR1041](#)



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### Configuration

Direction	Clockwise
Connector 1	2.92mm Female
Connector 2	2.92mm Female

### Environmental Specifications

#### Temperature

Operating Range	-40 to +80 deg C
Storage Range	-40 to +80 deg C

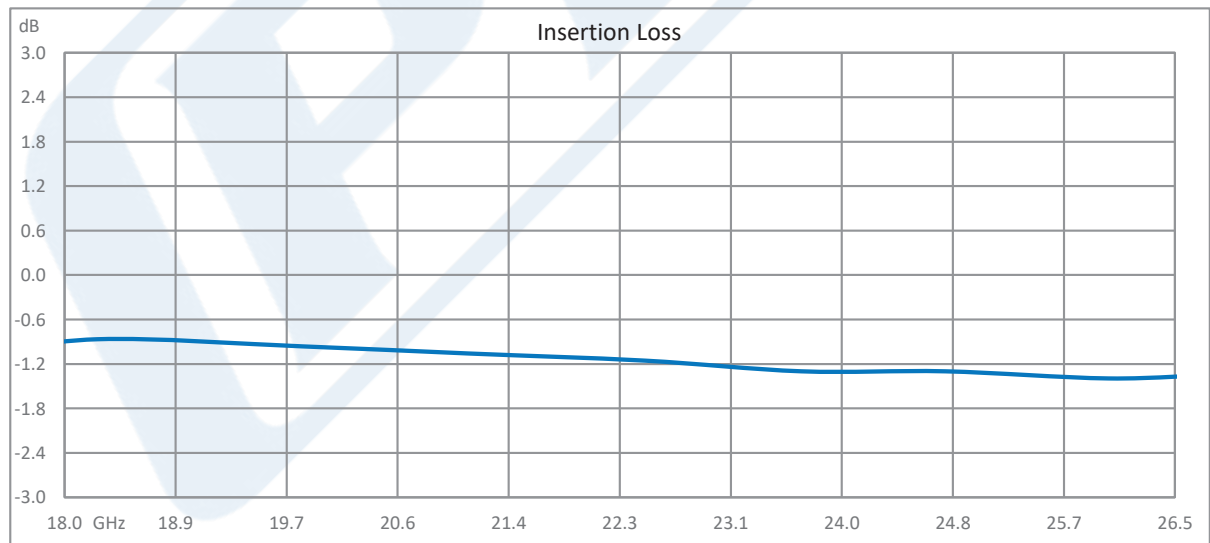
Humidity	100% RH at 35°C, 95%RH at 40°C
Shock	20G for 11msec half sine wave, 3 axis both directions
Vibration	25gRMS (15 degrees 2KHz) endurance, 1 hour per axis
Altitude	60,000 ft. 1.0psi min (Hermetically Sealed Un-controlled environment)
Hermetic Seal	IP68

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

### Plotted and Other Data

Notes:

#### Typical Performance Data



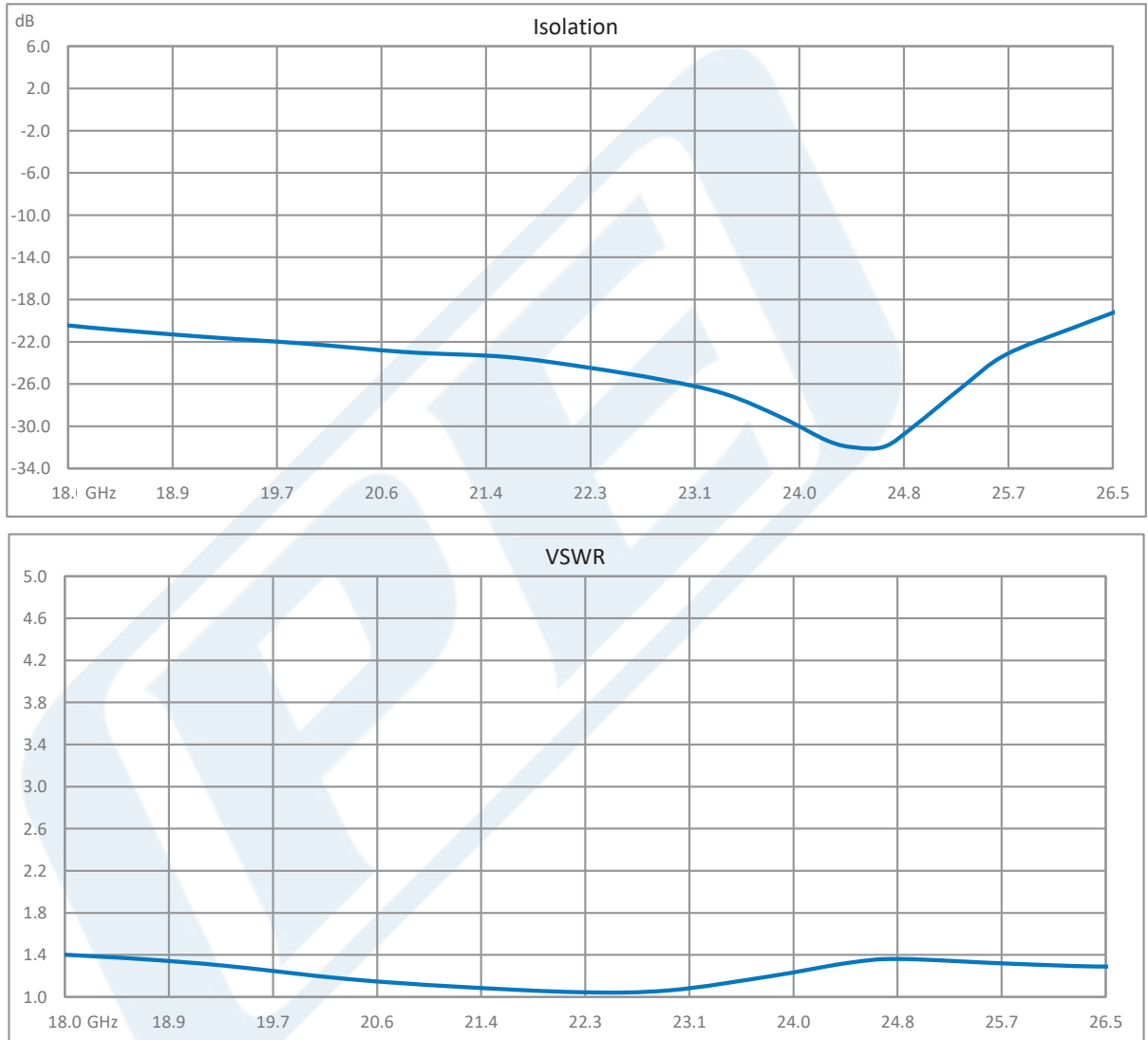
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Isolator with 14 dB Isolation from 18 GHz to 26.5 GHz, Hermetically Sealed, 10 Watts and 2.92mm Female from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

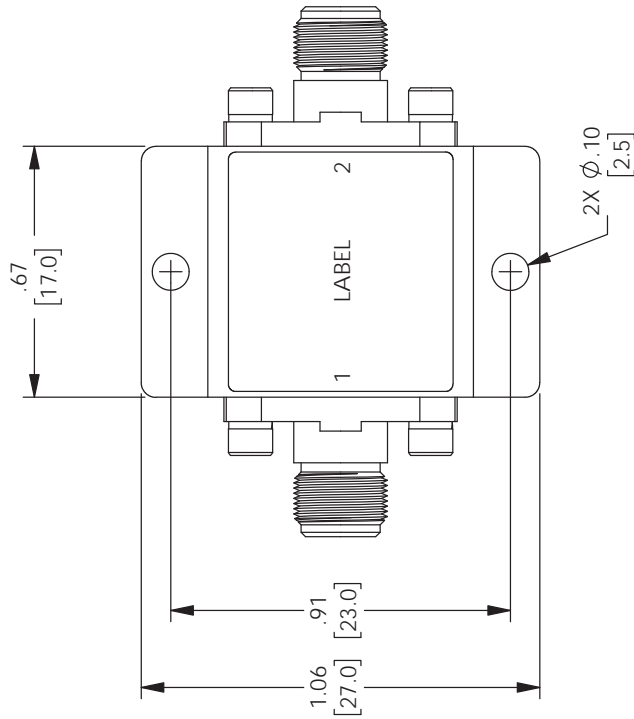
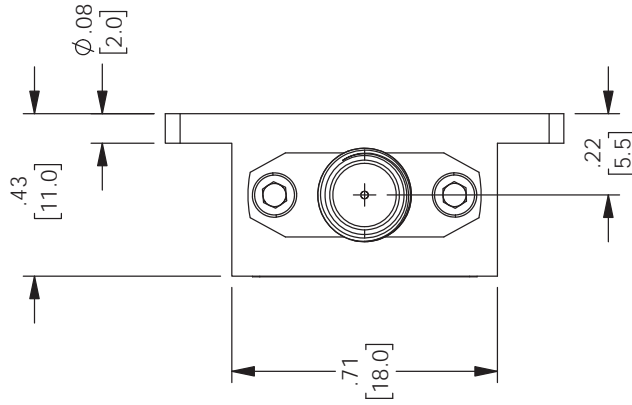
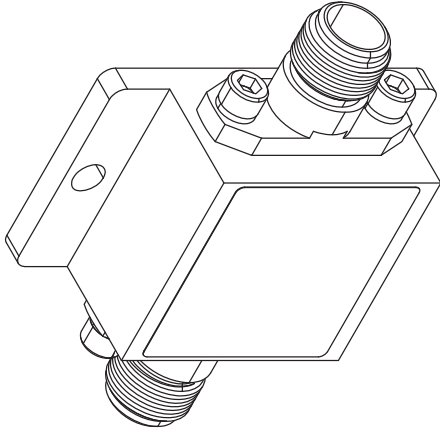
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The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. 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.

# PE83IR1041 CAD Drawing

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LABEL:

PASTERNAK  
PE83IR1041  
D/C: XXXX

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

TOLERANCES:

X = +.2 [5.08] FRACTIONS  
XX = +.02 [ .51 ] ±.132  
.XXX = ±.005 [ .13 ] ANGLES ± 1°  
CABLE LENGTH (L) TOLERANCES:  
L ≤ 12 [305] = +.1 [25] / -0  
12 [305] < L ≤ 60 [1524] = +.2 [51] / -0  
60 [1524] < L ≤ 120 [3048] = +.4 [102] / -0  
120 [3048] < L ≤ 300 [7620] = +.6 [152] / -0  
300 [7620] < L = +5% / -0  
ALL DIMENSIONS SHOWN  
ARE FOR REFERENCE ONLY.

THIRD-ANGLE PROJECTION



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SHEET 1 OF 1

SCALE N/A

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SIZE A CAGE CODE 53919 DRAWN BY DFRISIELLO ITEM NO. PE83IR1041

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