

## Isolator with 10 dB Isolation from 6 GHz to 18 GHz, 10 Watts and SMA Female

### PE83IR1029



#### Features

- Forward Power 10 watts
- Wide-Band Operating of 6 to 18 GHz
- Female SMA Connectors
- Low VSWR of 1.60:1 Max
- Low Insertion Loss of 1.5 dB Max
- Good Isolation Performance of 10 dB Minimum

#### Applications

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

#### Description

The PE83IR1029 is an RF isolator offering a forward power rating of 10 watts over an operational frequency band of 6 to 18 GHz. This coaxial part uses SMA female connectors on all ports and has a minimum of 10 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	Min	Typ	Max	Units
Frequency Range	6		18	GHz
Impedance		50		Ohms
Insertion Loss			1.5	dB
Isolation	10			dB
VSWR			1.6:1	
Forward Power, CW			10	Watts

#### Mechanical Specifications

##### Size

Length	0.78 in [19.81 mm]
Width	0.49 in [12.45 mm]
Height	0.35 in [8.89 mm]
Weight	0.025 lbs [11.34 g]
Body Material and Plating	Aluminum, Nickel

##### Configuration

Design	Single Junction
Direction	Clockwise
Connector 1	SMA Female
Connector 2	SMA Female

Isolator with 10 dB Isolation from 6 GHz to 18 GHz, 10 Watts and SMA Female



## PE83IR1029

### Environmental Specifications

#### Temperature

Operating Range

-40 to +70 deg C

Storage Range

-40 to +85 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

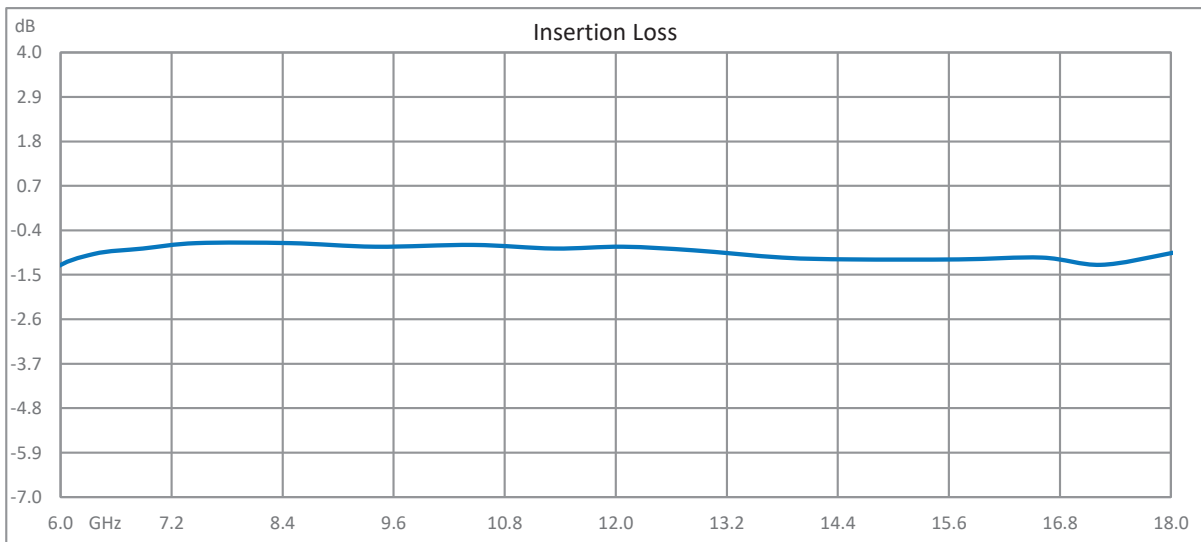
30,000 ft. (Epoxy Sealed Controlled environment)

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

### Plotted and Other Data

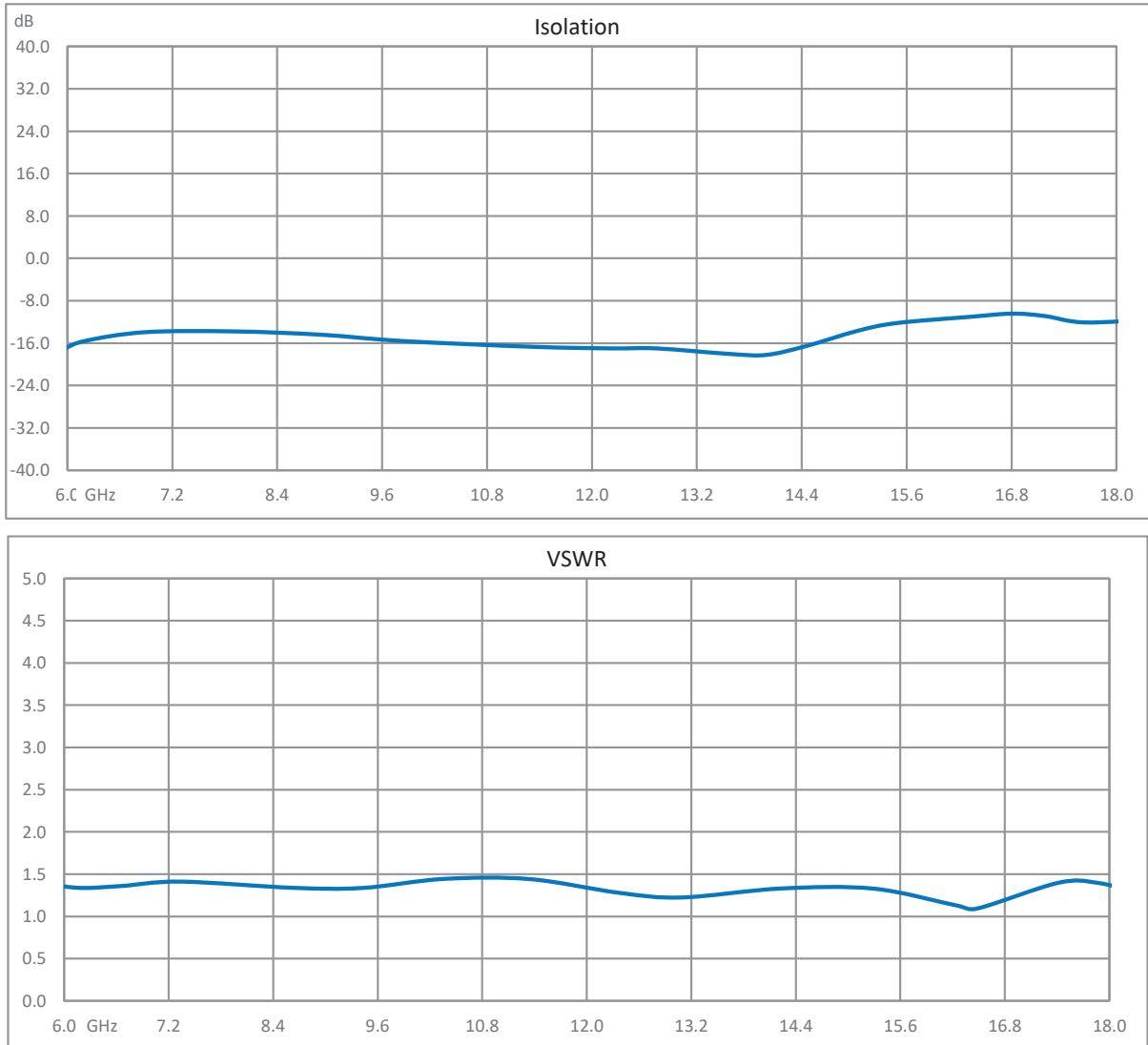
Notes:

### Typical Performance Data



Isolator with 10 dB Isolation from 6 GHz to 18 GHz, 10 Watts and SMA Female

## PE83IR1029



Isolator with 10 dB Isolation from 6 GHz to 18 GHz, 10 Watts and SMA Female

## PE83IR1029



Isolator with 10 dB Isolation from 6 GHz to 18 GHz, 10 Watts and SMA 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.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Isolator with 10 dB Isolation from 6 GHz to 18 GHz, 10 Watts and SMA Female PE83IR1029](https://www.pasternack.com/isolator-10db-isolation-18-ghz-10-watts-sma-female-pe83ir1029-p.aspx)

URL: <https://www.pasternack.com/isolator-10db-isolation-18-ghz-10-watts-sma-female-pe83ir1029-p.aspx>

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

Isolator with 10 dB Isolation from 6 GHz to 18 GHz, 10 Watts and SMA Female

T-Rev.D