

## Directional 30 dB SMA Coupler From 500 MHz to 18 GHz Rated to 30 Watts



### PE2243-30

#### Features

- Directional Coupler
- 0.5 to 18 GHz Frequency Range
- Coupling  $30 \pm 1.25$  dB
- Directivity 10 to 20 dB Typ.
- VSWR 1.22:1 to 1.67:1 Typ.
- Max Power 30 Watts (CW)

#### Applications

- Test and Measurement
- Military Communications
- Commercial Communications
- Wireless Communications
- SATCOM

#### Description

Directional couplers are indispensable components for isolating, separating and combining signals. For example, they provide a simple way of sampling microwave signals. They also can make accurate attenuator measurements since reflections are eliminated. The PE2243-30 is a 30 dB directional coupler that operates from 0.5 to 18 GHz and can handle up to 30 Watts (CW) with a typical directivity between 10 to 20 dB and VSWR between 1.22:1 to 1.67:1. The package interface uses SMA female connectors, and is also REACH and RoHS compliant.

The PE2243-30 is part of Pasternack's family of directional/dual-directional couplers that offer coupling ratios up to 50 dB with excellent performance featuring high directivity, low insertion loss and VSWR. They are available in both narrow and broad bandwidths and can be used in a wide variety of applications including signal sampling, VSWR measurements, power combining and distribution.

#### Electrical Specifications

| Description        | Min | Typ           | Max | Units  |
|--------------------|-----|---------------|-----|--------|
| Frequency Range    | 0.5 |               | 18  | GHz    |
| Impedance          |     | 50            |     | Ohms   |
| Coupling           |     | $30 \pm 1.25$ |     |        |
| Freq. Sensitivity  |     | $\pm 1$       |     | dB     |
| Input Power (CW)   |     |               | 30  | Watts  |
| Input Power (Peak) |     |               | 3   | kWatts |

#### Performance by Frequency

| Description              | F1     | F2     | F3     | F4      | F5 | Units |
|--------------------------|--------|--------|--------|---------|----|-------|
| Frequency Range          | 0.5-4  | 4-8    | 8-12.4 | 12.4-18 |    | GHz   |
| Insertion Loss, Typ      | 0.5    | 0.7    | 1.13   | 1.6     |    | dB    |
| Main Line VSWR, Typ      | 1.22:1 | 1.22:1 | 1.29:1 | 1.38:1  |    |       |
| Secondary Line VSWR, Typ | 1.22:1 | 1.29:1 | 1.43:1 | 1.67:1  |    |       |
| Directivity, Typ         | 20     | 17     | 15     | 10      |    | dB    |

Electrical Specification Notes:

Values at 25°C, sea level.

Coupling tolerance includes frequency sensitivity.

## Directional 30 dB SMA Coupler From 500 MHz to 18 GHz Rated to 30 Watts

### PE2243-30



#### Mechanical Specifications

##### Size

|            |                      |
|------------|----------------------|
| Length     | 4.4 in [111.76 mm]   |
| Width/Dia. | 0.38 in [9.65 mm]    |
| Height     | 1.11 in [28.19 mm]   |
| Weight     | 0.1445 lbs [65.54 g] |

##### Configuration

|                    |               |
|--------------------|---------------|
| Package Type       | Connectorized |
| Input Connector    | SMA Female    |
| Output Connector   | SMA Female    |
| Coupled Connectors | SMA Female    |

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

#### Plotted and Other Data

Notes:

Directional 30 dB SMA Coupler From 500 MHz to 18 GHz Rated to 30 Watts 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: [Directional 30 dB SMA Coupler From 500 MHz to 18 GHz Rated to 30 Watts PE2243-30](#)

URL: <https://www.pasternack.com/directional-30-db-sma-coupler-500-mhz-18-ghz-30-watts-pe2243-30-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.

# PE2243-30 CAD Drawing

Directional 30 dB SMA Coupler From 500 MHz to 18 GHz Rated to 30 Watts

