



4 Way SMA Power Divider from 6 GHz to 18 GHz Rated at 30 Watts

Power Dividers Technical Data Sheet

PE20DV1048

Features

- Ultra Wide Band Operation
- 30 watt CW Rating
- 6 to 18 GHz
- SMA Female Connector
- Meets Standards for Humidity, Shock, Vibration, Altitude

Applications

- Communications Systems
- Amplifier Systems
- Amplifier Power Dividing
- Aerospace/Aviation
- Defense Applications

Description

PE20DV1048 is a passive 4 way RF Power Divider with 50 ohm SMA female connectors operating from 6 to 18 GHz, with a max input power of 30 watts. The PE20DV1048 has less than 19 dB Isolation, 1 dB Maximum Insertion loss and a Max VSWR of 1.55:1; along with a phase balance of ± 6 degrees and an amplitude balance of ± 0.3 dB. The RF Divider operates in a temperature range from -45°C to 85°C and is rated for Humidity, Shock, Vibration, and Altitude. Power dividers have many applications and so perform many valuable functions within the RF/Microwave world. Examples are antenna beam forming, taps for cable distributed systems combining feeds to and from antennae.

Electrical Specifications

Number of Output Ports 4

| Description | Minimum | Typical | Maximum | Units |
|--------------------|---------|-----------|-----------|---------|
| Frequency Range | 6 | | 18 | GHz |
| Impedance | | 50 | | Ohms |
| Input VSWR | | 1.35:1 | 1.55:1 | |
| Insertion Loss | | 0.7 | 1 | dB |
| Isolation | 16 | 19 | | dB |
| Amplitude Balance | | ± 0.4 | ± 0.5 | dB |
| Phase Balance | | ± 3 | ± 6 | Degrees |
| Input Power (CW) | | | 30 | Watts |
| Reverse Power (CW) | | | 1 | Watt |
| Input Power (Peak) | | | 300 | Watts |

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [4 Way SMA Power Divider from 6 GHz to 18 GHz Rated at 30 Watts PE20DV1048](#)



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Mechanical Specifications

Size

| | |
|--------|---------------------|
| Length | 2 in [50.8 mm] |
| Width | 0.38 in [9.65 mm] |
| Height | 2 in [50.8 mm] |
| Weight | 0.165 lbs [74.84 g] |

Finish

Housing Material and Plating Aluminum

Configuration

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

Environmental Specifications

Temperature

| | |
|-----------------|-------------------|
| Operating Range | -45 to +85 deg C |
| Storage Range | -55 to +125 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

25g RMS (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:

4 Way SMA Power Divider from 6 GHz to 18 GHz Rated at 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: [4 Way SMA Power Divider from 6 GHz to 18 GHz Rated at 30 Watts PE20DV1048](#)

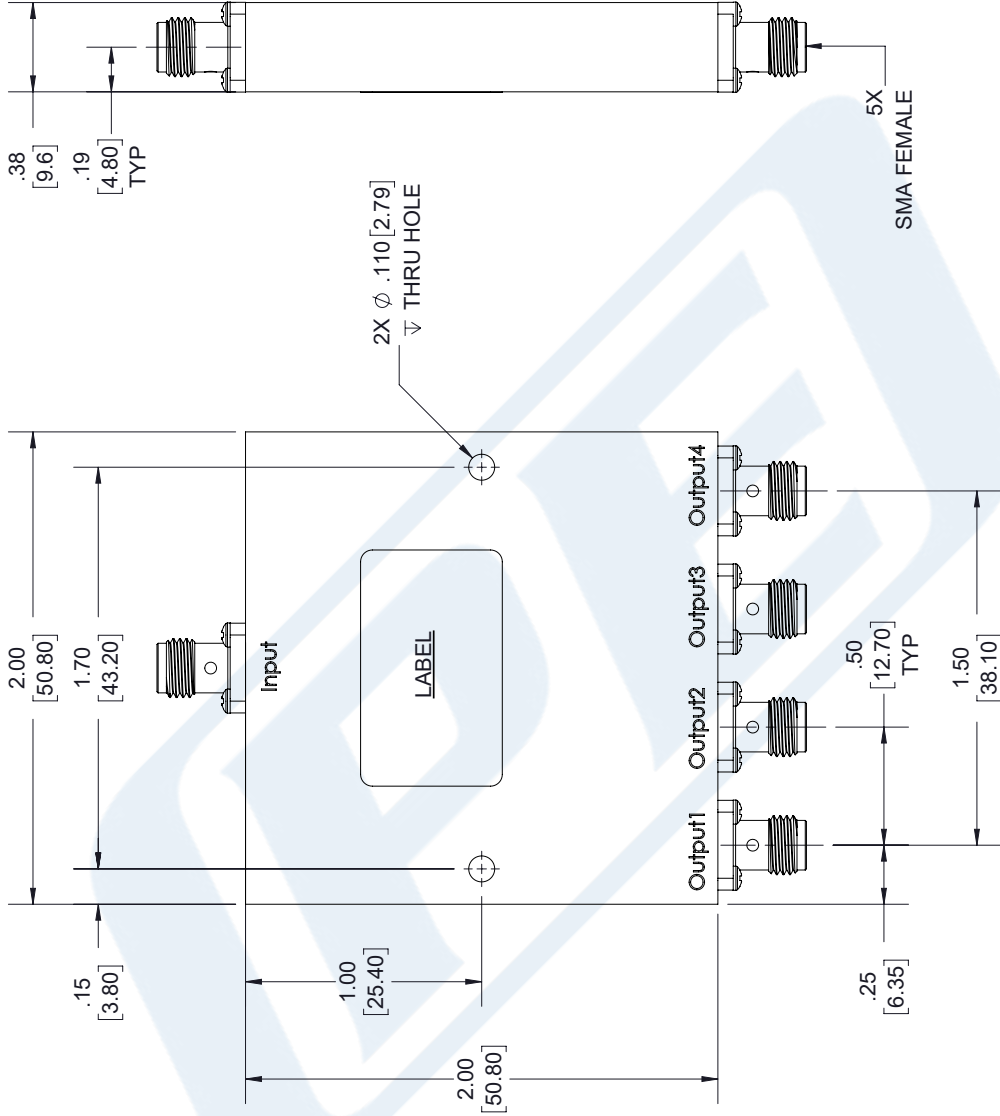
URL: <https://www.pasternack.com/4-way-sma-power-divider-18-ghz-pe20dv1048-p.aspx>

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.

PE20DV1048 CAD Drawing

4 Way SMA Power Divider from 6 GHz to 18 GHz Rated at 30 Watts

| REVISIONS | | | |
|-----------|-----------------|-----------|----------|
| REV. | DESCRIPTION | DATE | APPROVED |
| A | INITIAL RELEASE | 5/18/2020 | S. PONG |



PE PASTERNAK
an INFINITI[®] brand

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THIRD-ANGLE PROJECTION

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SHEET 1 OF 1

SCALE N/A

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

TOLERANCES:

| | | |
|--------------|--------|-------------|
| .X = ±.2 | [5.08] | FRACTIONS |
| .XX = ±.02 | [.51] | ± 1/32 |
| .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%L / -0 |

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

LABEL:
PASTERNAK
PE20DV1048
D/C: YYWW

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| | | | |
|------|-----------|----------|------------|
| SIZE | CAGE CODE | DRAWN BY | ITEM NO. |
| A | 53919 | K. Dang | PE20DV1048 |
| REV | | | A |

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