



Diplexer 75 Ohm Type F Female, 5 to 68 MHz and  
125 to 1000 MHz TV Band, 87 to 108 MHz FM Band

## RF Diplexers Technical Data Sheet

**PE8DP1005**

### Features

- Frequency range from 5 to 1000 MHz
- TV band: 5 to 68 MHz & 125 to 1000 MHz
- FM band: 87 to 108 MHz
- Max insertion loss 3 dB
- 75ohm impedance
- Max VSWR 1.93:1

### Applications

- Cable TV/Internet
- Broadcast TV
- Signal Splitting
- MSO

### Description

PE8DP1005 is a RF diplexer with F-type connectors used to split RF signals with different frequencies. The operating frequency range for this diplexer is from 5 to 1000 MHz. The TV band is from 5 to 68 MHz and 125 to 1000 MHz and FM band is from 87 to 108 MHz. This RF diplexer has great insertion loss of 2 dB and minimum return loss of 10 dB with 75ohm impedance. PE8DP1005 is part of a broad RF product portfolio from Pasternack which can be shipped the same day with no MOQ.

### Electrical Specifications

| Description           | Minimum | Typical | Maximum | Units |
|-----------------------|---------|---------|---------|-------|
| Impedance             |         | 75      |         | Ohms  |
| <b>Common Port</b>    |         |         |         |       |
| Frequency             | 5       |         | 1,000   | MHz   |
| DC Block              |         |         | 50      | V     |
| <b>FM Port</b>        |         |         |         |       |
| Passband Frequency    | 87      |         | 108     | MHz   |
| Return Loss           | 10      | 12      |         | dB    |
| Insertion Loss        |         | 2       | 3       | dB    |
| Rejection Frequency   | 5       |         | 68      | MHz   |
| Rejection             | 20      | 22      |         | dB    |
| Rejection Frequency 2 | 125     |         | 200     | MHz   |
| Rejection 2           | 18      | 22      |         | dB    |
| Rejection Frequency 3 | 201     |         | 1,000   | MHz   |
| Rejection 3           | 45      | 50      |         | dB    |
| DC Block              |         |         | 50      | V     |
| <b>TV Port</b>        |         |         |         |       |
| Passband Frequency    | 5       |         | 68      | MHz   |
| Return Loss           | 10      | 12      |         | dB    |
| Insertion Loss        |         | 0.5     | 1       | dB    |
| Rejection Frequency   | 87      |         | 108     | MHz   |
| Rejection             | 15      | 20      |         | dB    |

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Diplexer 75 Ohm Type F Female, 5 to 68 MHz and 125 to 1000 MHz TV Band, 87 to 108 MHz FM Band PE8DP1005](#)



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|                      |     |     |       |     |
|----------------------|-----|-----|-------|-----|
| Passband Frequency 2 | 125 |     | 1,000 | MHz |
| Return Loss 2        | 10  | 12  |       | dB  |
| Insertion Loss 2     |     | 0.5 | 1     | dB  |
| DC Block             |     |     | 50    | V   |

Electrical Specification Notes:  
Values at 25°C, sea level.

### Mechanical Specifications

#### Size

|               |                     |
|---------------|---------------------|
| Length        | 2.933 in [74.5 mm]  |
| Width         | 1.299 in [32.99 mm] |
| Height        | 0.705 in [17.91 mm] |
| Weight        | 0.132 lbs [59.87 g] |
| Body Material | Zinc                |
| Body Plating  | Zinc                |
| Finish        | Polished            |

#### Configuration

|               |               |
|---------------|---------------|
| Design        | Bidirectional |
| Package Style | Connectorized |
| Connector 1   | F Female      |
| Connector 2   | F Female      |
| Connector 3   | F Female      |

### Environmental Specifications

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

### Plotted and Other Data

Notes:

- Values at 25°C, sea level.

Diplexer 75 Ohm Type F Female, 5 to 68 MHz and 125 to 1000 MHz TV Band, 87 to 108 MHz FM Band 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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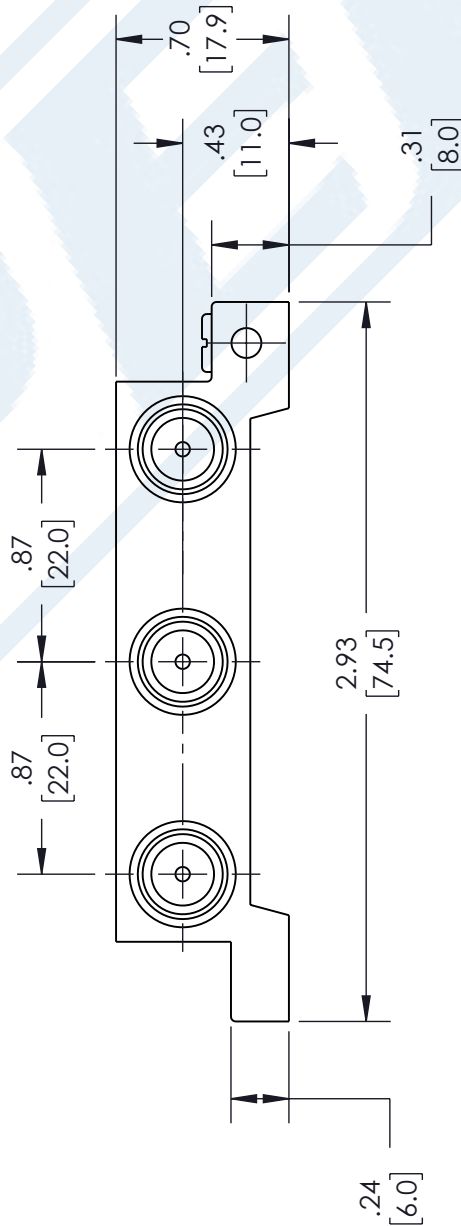
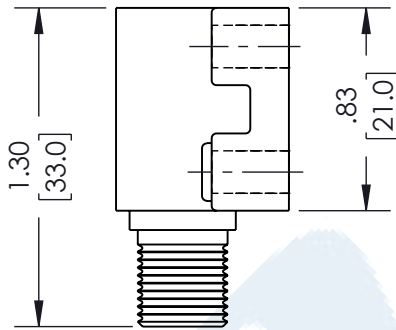
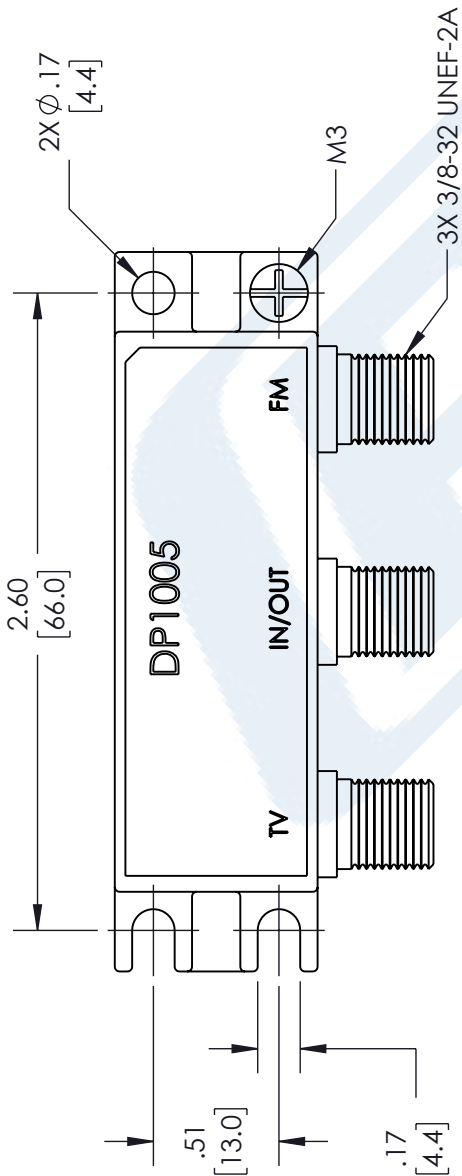
URL: <https://www.pasternack.com/75-ohm-diplexer-f-female-87-108-mhz-5-68-mhz-pe8dp1005-p.aspx>

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.

# PE8DP1005 CAD Drawing

Diplexer 75 Ohm Type F Female, 5 to 68 MHz and 125 to 1000 MHz TV Band, 87 to 108 MHz FM Band

| REVISIONS |                 |          |          |
|-----------|-----------------|----------|----------|
| REV.      | DESCRIPTION     | DATE     | APPROVED |
| A         | INITIAL RELEASE | 11/03/22 | SPONG    |



|                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                     |                                                                                                                                                                       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
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