

# MDPX17270609D21

Diplexer For 690-960MHz / 1710-3700MHz

MECSINE 兆讯

Multilayer Diplexer

For 690-960MHz / 1710-2700MHz

# MDPX06091727D21

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2.0 x 1.25mm [EIA 0805]

*All Use For RF & Microwave*

Shenzhen Megsine technology co., ltd [www.megsine.com](http://www.megsine.com) [sales@megsine.com](mailto:sales@megsine.com) may contain us for future information  
Feb. 03, 2024

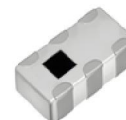
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## APPLICATIONS

- 1, Low Insertion Loss
- 2, Small size in 0805
- 3, Excellent high-power capacity up to 2W
- 4, RoHS compliance (Pb-Free)



## DESCRIPTION

The MDPX17270609D21 is a low-cost, high-performance band pass filter in an easy to use surface mount package. The MDPX17270609D21 is ideal for low insertion loss and wide band application. It is suitable used in smart phone, 5G module and other IOT modules. It is constructed from ceramic which possess excellent electrical and mechanical stability. All components are 100% RF tested.

## MAXIMUM RATINGS

| Characteristic              | Ratings | Units |
|-----------------------------|---------|-------|
| RF Power (in BW)            | 33      | dBm   |
| Operating Temperature Range | -40~+85 | °C    |
| Storage Temperature Range   | -40~+85 | °C    |
| Moisture Sensitivity Levels | 3       | MSL   |
| ESD Level Human Body Model  | 8000    | V     |

## ELECTRICAL CHARACTERISTICS

### Low-Band

| Item                                   | Frequency Range (MHz) | Min.         | Typ. | Max. |
|----------------------------------------|-----------------------|--------------|------|------|
| Insertion Loss (dB)                    | 698 to 746            | -            | 0.22 | 0.35 |
|                                        | 746 to 960            | -            | 0.19 | 0.35 |
| Return Loss (dB)                       | 698 to 746            | 10           | 15   | -    |
|                                        | 746 to 960            | 10           | 22   | -    |
| Attenuation (dB)                       | 1710-2170             | 25           | 30   | --   |
|                                        | 2170 to 2400          | 30           | 35   | -    |
|                                        | 2400 to 2700          | 25           | 32   | -    |
| Characteristics Impedance ( $\Omega$ ) |                       | 50 (Nominal) |      |      |

- Ta: +25±5°C

### High-Band

| Item                                   | Frequency Range (MHz) | Min.         | Typ. | Max. |
|----------------------------------------|-----------------------|--------------|------|------|
| Insertion Loss (dB)                    | 1710 to 2700          | -            | 0.25 | 0.35 |
| Return Loss (dB)                       | 1710 to 2700          | 10           | 15   | -    |
| Attenuation (dB)                       | 698 to 960            | 20           | 29   | -    |
| Characteristics Impedance ( $\Omega$ ) |                       | 50 (Nominal) |      |      |

- Ta: +25±5°C

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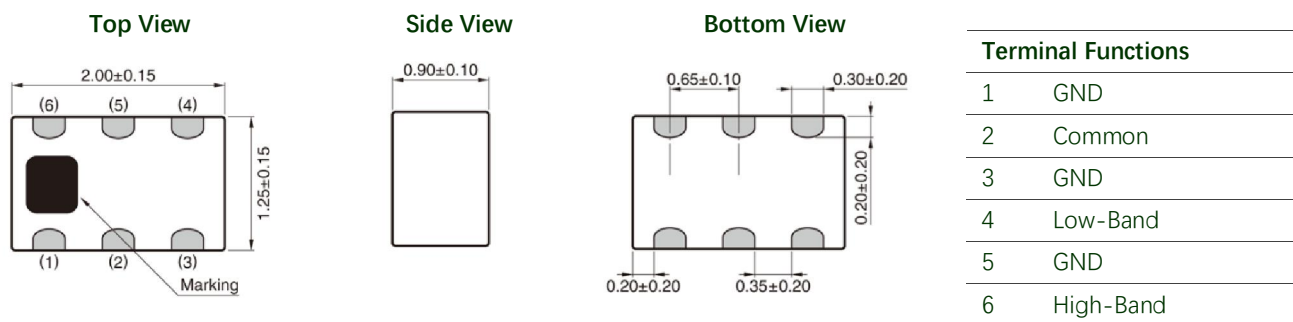
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## Common

| Item                                   | Frequency Range (MHz) | Min.         | Typ. | Max. |
|----------------------------------------|-----------------------|--------------|------|------|
| Isolation (dB)                         | 698 to 960            | 16           | 20   | -    |
|                                        | 1700 to 2700          | 10           | 13   | -    |
| Return Loss (dB)                       | 698 to 960            | 10           | 18   | -    |
|                                        | 1700 to 2700          | 10           | 22   | -    |
| Characteristics Impedance ( $\Omega$ ) |                       | 50 (Nominal) |      |      |

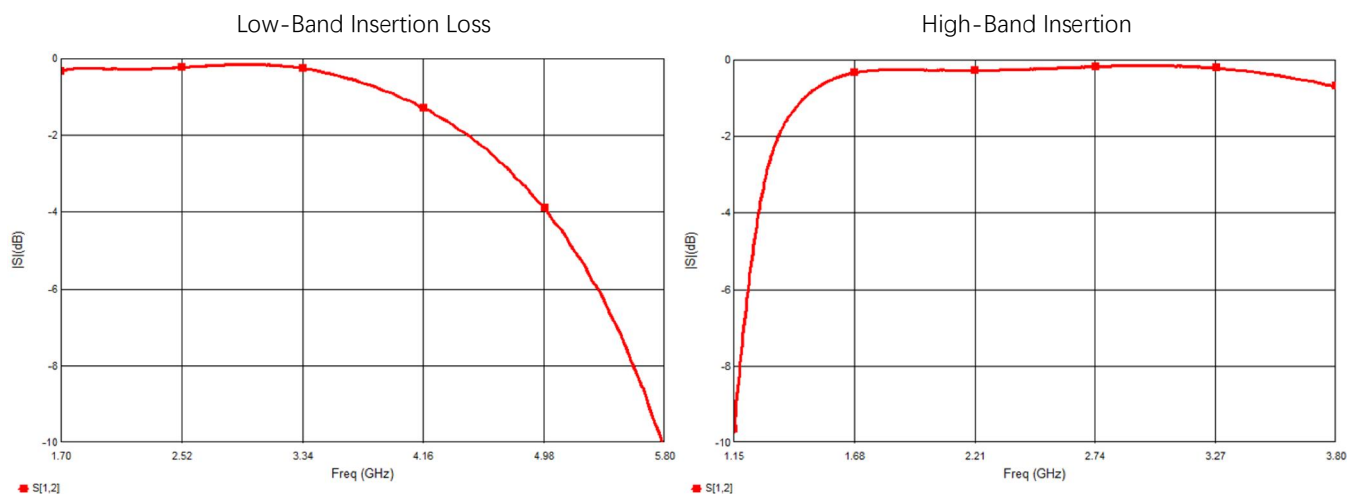
- Ta: +25±5°C

## SHAPES AND DIMENSIONS



Unit: mm

## FREQUENCY CHARACTERISTICS



Low-Band Return Loss

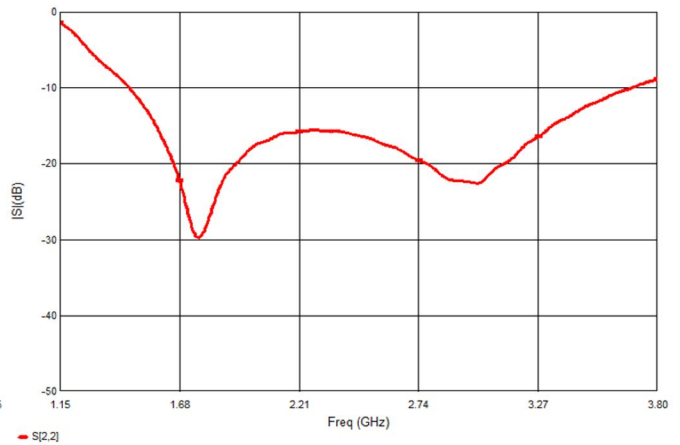
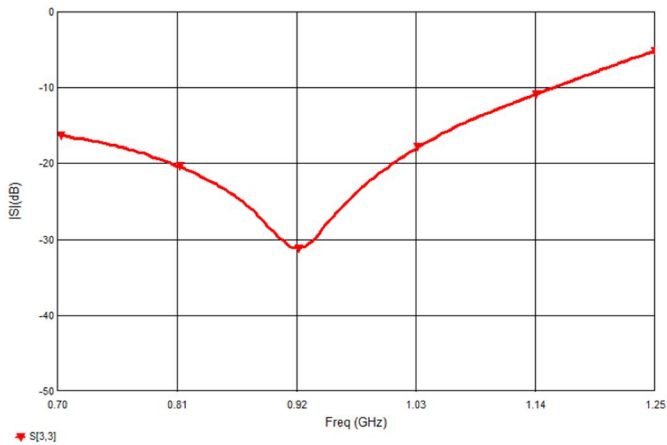
High-Band Return Loss

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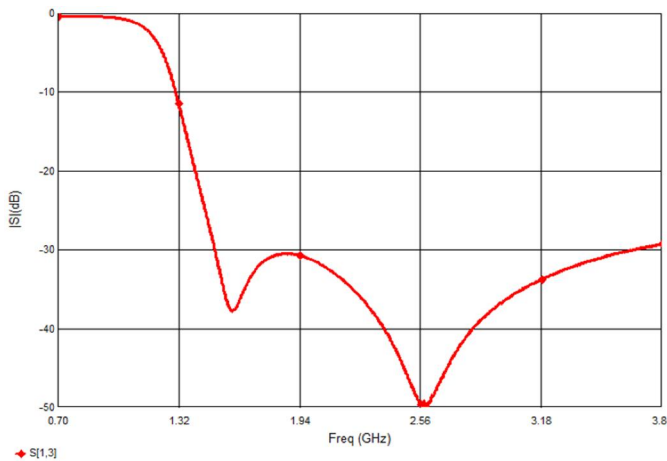
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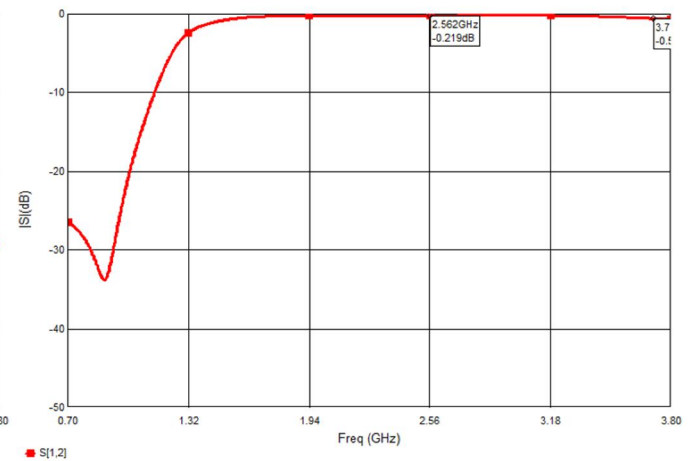
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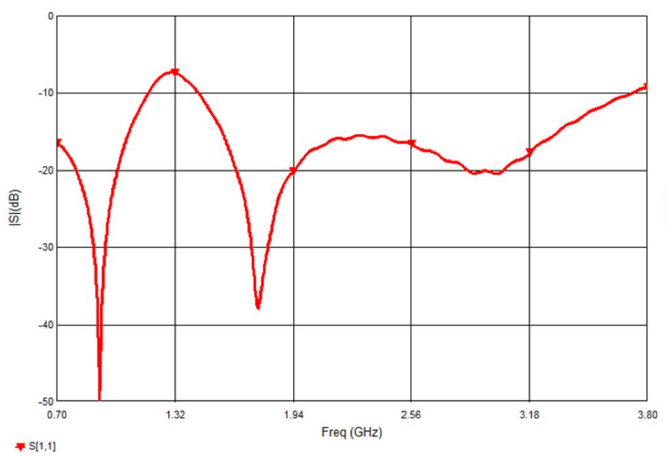
Low-Band Attenuation



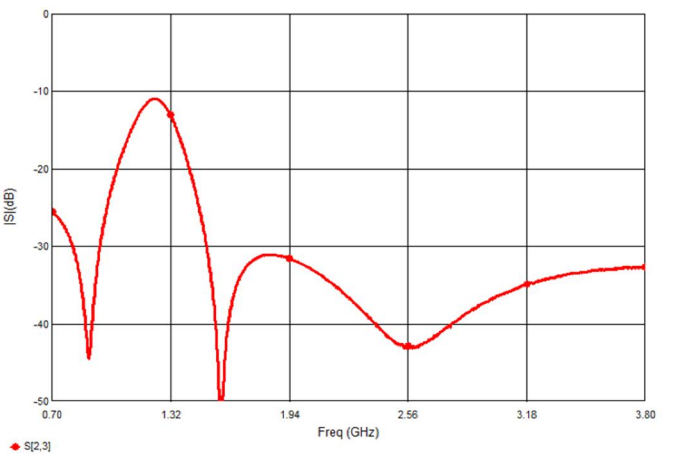
High-Band Attenuation



Common Return Loss



Common Isolation



RECOMMENDED LAND PATTERN AND EVALUATION BOARD

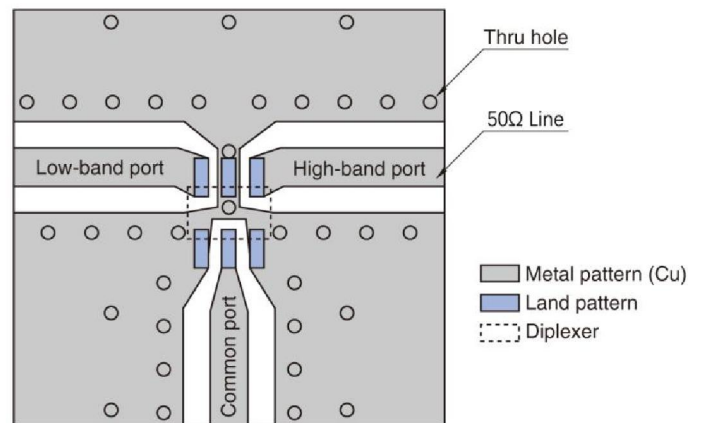
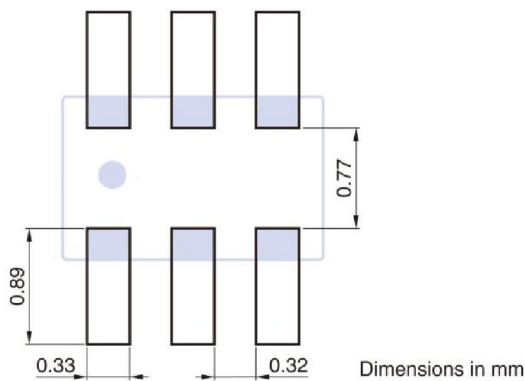
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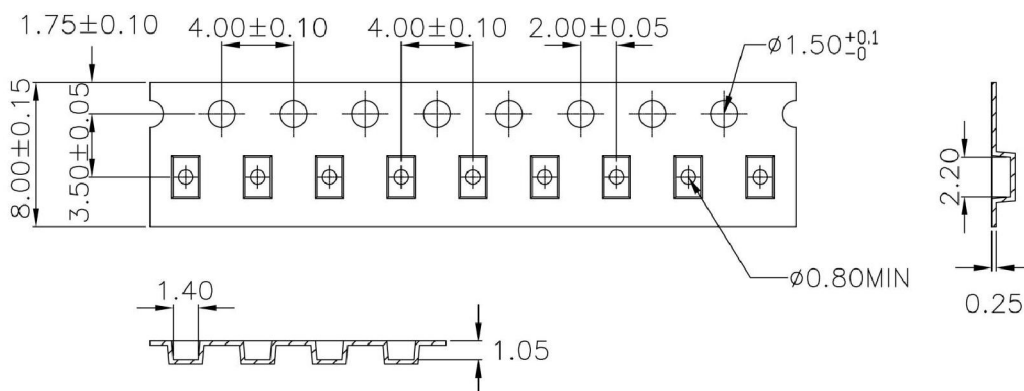
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## PACKAGING AND ORDERING INFORMATION

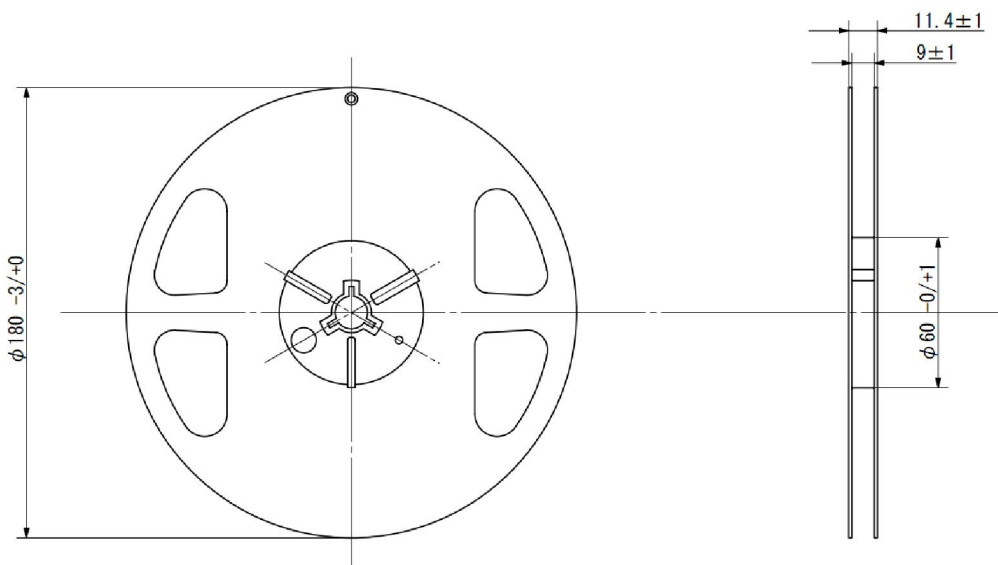


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| Device          | Package    | Reel | Shipping  |
|-----------------|------------|------|-----------|
| MDPX06091727D21 | 2.0*1.25mm | 7"   | 3000 Reel |

| Revision | Description | Date      |
|----------|-------------|-----------|
| Rev0     | Preliminary | 2024/2/26 |
|          |             |           |
|          |             |           |

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