



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Multilayer Diplexer

For 806-941MHz / 1574.42-1576.42MHz

DPX161576DT-8011B1

1.6x0.8mm [EIA 0603]*

* Dimensions Code JIS[EIA]

Multilayer Diplexer

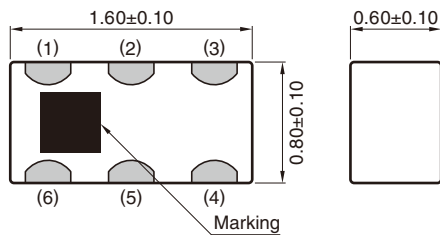
Conformity to RoHS Directive

For 806-941MHz / 1574.42-1576.42MHz

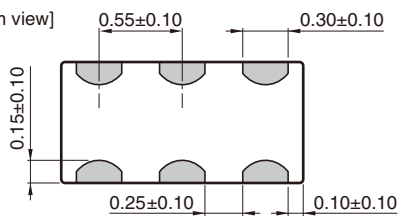
DPX161576DT-8011B1

SHAPES AND DIMENSIONS

[Top view]



[Bottom view]

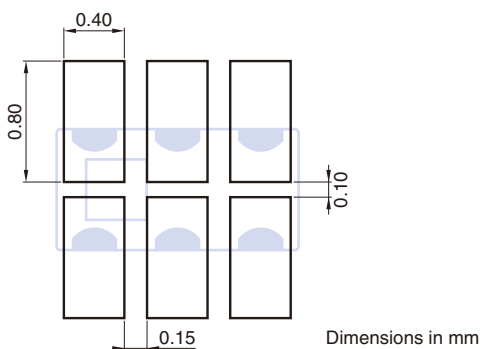


Terminal functions

| | |
|---|-----------|
| 1 | Low-band |
| 2 | GND |
| 3 | High-band |
| 4 | GND |
| 5 | Common |
| 6 | GND |

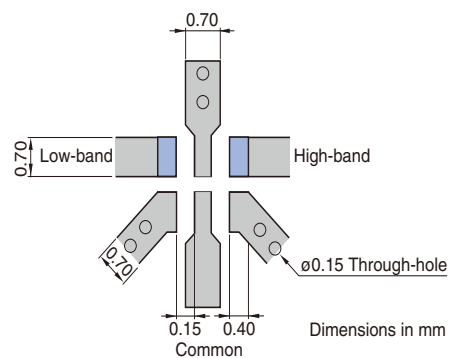
Dimensions in mm

RECOMMENDED LAND PATTERN



Dimensions in mm

EVALUATION BOARD



Dimensions in mm

Line width should be designed to match 50Ω characteristic impedance, depending on PCB material and thickness.

○ RoHS Directive Compliant Product: See the following for more details related to RoHS Directive compliant products. <http://product.tdk.com/en/environment/rohs/>

- All specifications are subject to change without notice.
- Before using these products, be sure to request the delivery specifications.

DPX161576DT-8011B1

ELECTRICAL CHARACTERISTICS

LOW-BAND

| Item | Frequency Range (MHz) | Min. | Typ. | Max. |
|------------------------------|-----------------------|------|--------------|---------------------|
| Insertion Loss (dB) | 806 to 941 | — | 0.40 | 0.60 |
| | 806 to 941 | — | — | 0.70 (–30 to +85°C) |
| Return Loss (dB) | 806 to 941 | 14 | 16.8 | — |
| | 1575 | 16 | 21.7 | — |
| Attenuation (dB) | 1612 to 1648 | 18 | 25.2 | — |
| | 1792 to 1856 | 14 | 18.9 | — |
| | 2000 to 3000 | 5 | 10.1 | — |
| Characteristic Impedance (Ω) | | | 50 (Nominal) | |

· Ta: +25±5°C

HIGH-BAND

| Item | Frequency Range (MHz) | Min. | Typ. | Max. |
|------------------------------|-----------------------|------|--------------|---------------------|
| Insertion Loss (dB) | 1574.42 to 1576.42 | — | 0.66 | 0.70 |
| | 1574.42 to 1576.42 | — | — | 0.80 (–30 to +85°C) |
| Return Loss (dB) | 1574.42 to 1576.42 | 14 | 22.8 | — |
| Attenuation (dB) | 806 to 928 | 20 | 30.5 | — |
| Characteristic Impedance (Ω) | | | 50 (Nominal) | |

· Ta: +25±5°C

COMMON

| Item | Frequency Range (MHz) | Min. | Typ. | Max. |
|------------------------------|-----------------------|------|--------------|------|
| Isolation (dB) | 806 to 928 | 20 | 30.8 | — |
| | 1575 | 16 | 22.3 | — |
| | 1612 to 1648 | 18 | 26.0 | — |
| | 1792 to 1856 | 14 | 21.5 | — |
| Return Loss (dB) | 806 to 941 | 14 | 17.6 | — |
| | 1574.42 to 1576.42 | 14 | 16.7 | — |
| Characteristic Impedance (Ω) | | | 50 (Nominal) | |

· Ta: +25±5°C

TEMPERATURE RANGE

| Operating temperature (°C) |
|----------------------------|
| –30 to +85 |

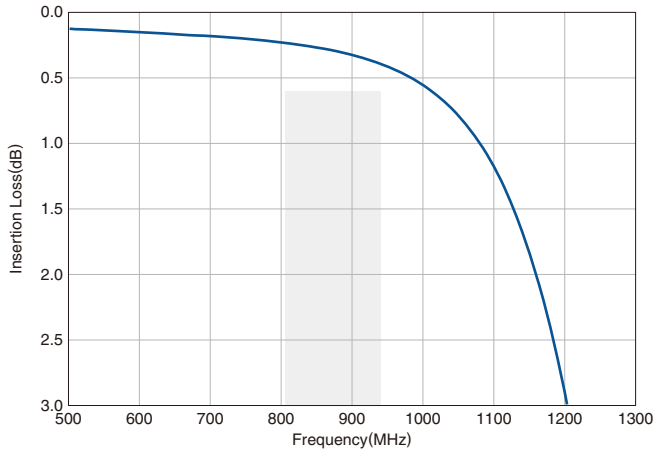
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DPX161576DT-8011B1

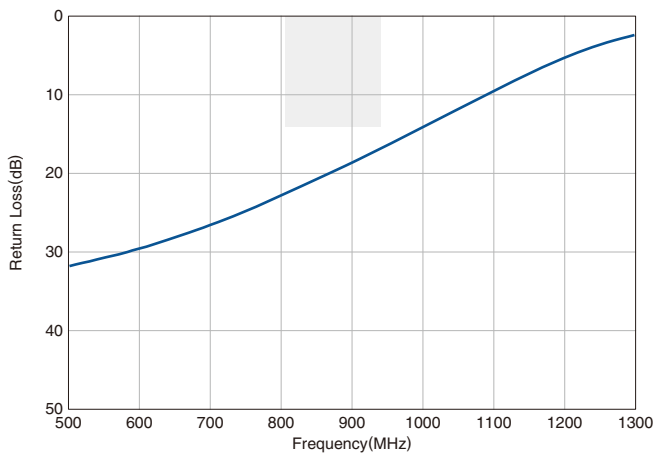
FREQUENCY CHARACTERISTICS

LOW-BAND

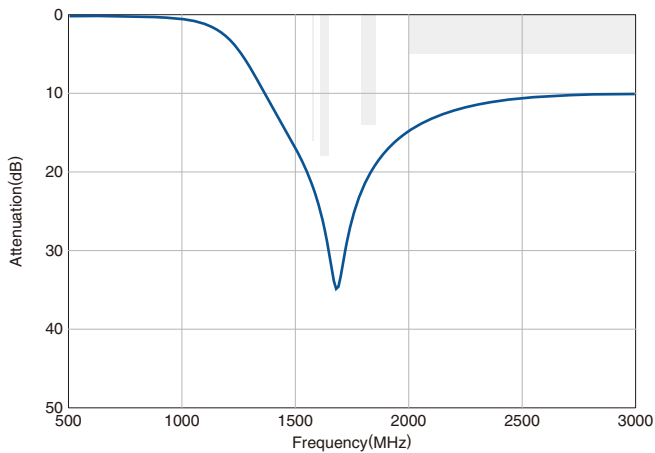
Insertion Loss



Return Loss

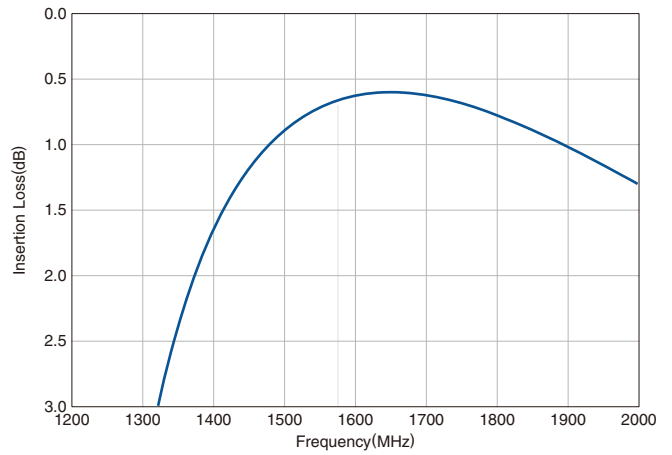


Attenuation

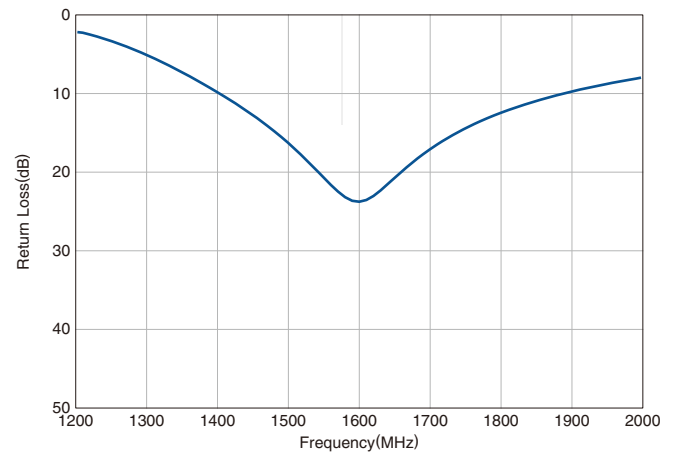


HIGH-BAND

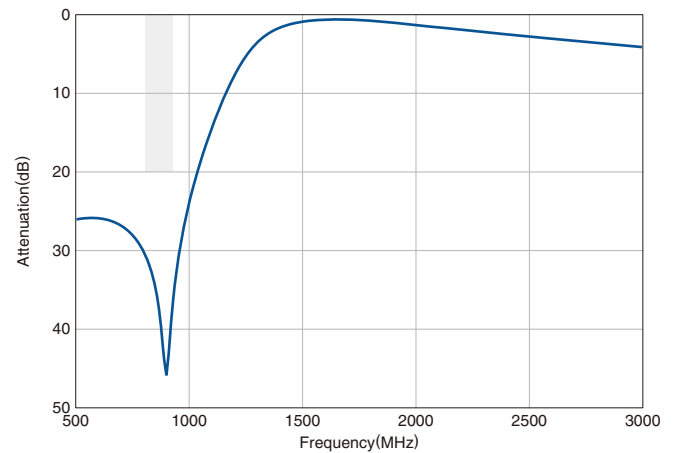
Insertion Loss



Return Loss



Attenuation



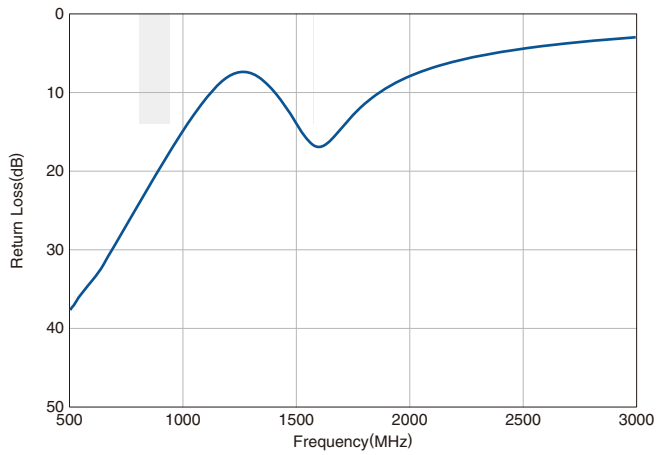
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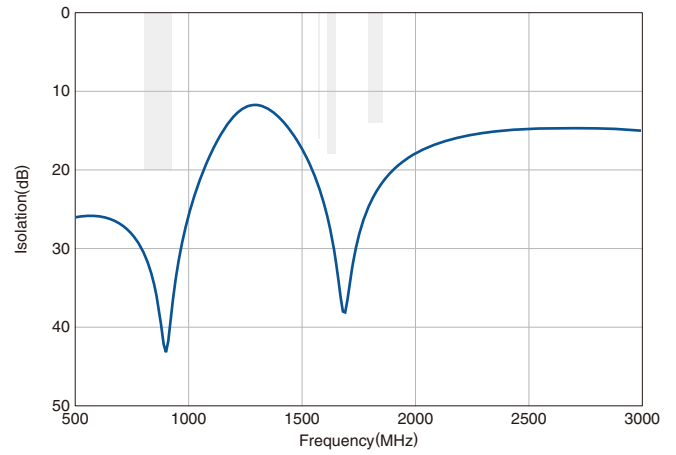
FREQUENCY CHARACTERISTICS

COMMON

Return Loss



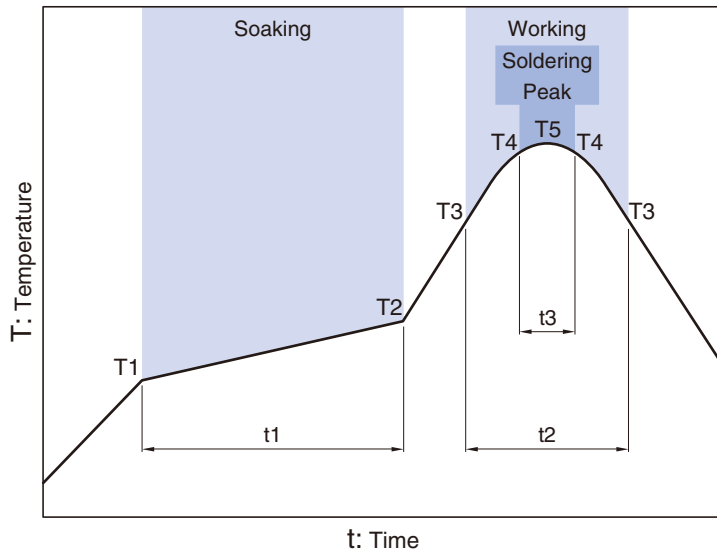
Isolation



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RECOMMENDED REFLOW PROFILE



| Soaking | | | Working | | Soldering Peak | | |
|---------|-------|------------|---------|---------------|----------------|------------|------------|
| Temp. | Temp. | Time | Temp. | Time | Temp. | Time | Temp. |
| T1 | T2 | t1 | T3 | t2 | T4 | t3 | T5 |
| 150°C | 180°C | 60 to 120s | 230°C | more than 30s | 247 to 253°C | within 10s | 260°C max. |

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REMINDERS FOR USING THESE PRODUCTS

Before using these products, be sure to request the delivery specifications.

SAFETY REMINDERS

Please pay sufficient attention to the warnings for safe designing when using these products.

REMINDERS

The products listed on this catalog are intended for use in general electronic equipment (AV equipment, telecommunications equipment, home appliances, amusement equipment, computer equipment, personal equipment, office equipment, measurement equipment, industrial robots) under a normal operation and use condition.

The products are not designed or warranted to meet the requirements of the applications listed below, whose performance and/or quality require a more stringent level of safety or reliability, or whose failure, malfunction or trouble could cause serious damage to society, person or property.

Please understand that we are not responsible for any damage or liability caused by use of the products in any of the applications below or for any other use exceeding the range or conditions set forth in this catalog.

- | | |
|---|--|
| (1) Aerospace/Aviation equipment | (8) Public information-processing equipment |
| (2) Transportation equipment (cars, electric trains, ships, etc.) | (9) Military equipment |
| (3) Medical equipment | (10) Electric heating apparatus, burning equipment |
| (4) Power-generation control equipment | (11) Disaster prevention/crime prevention equipment |
| (5) Atomic energy-related equipment | (12) Safety equipment |
| (6) Seabed equipment | (13) Other applications that are not considered general-purpose applications |
| (7) Transportation control equipment | |

When using this product in general-purpose applications, you are kindly requested to take into consideration securing protection circuit/equipment or providing backup circuits, etc., to ensure higher safety.