



Multilayer Diplexer

For 698-1607MHz / 2400-5850MHz

DPX165850DT-8032A1

1.6x0.8mm [EIA 0603]*

* Dimensions Code JIS[EIA]

Multilayer Diplexer

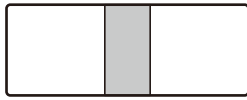
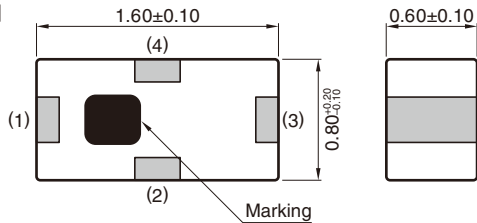
Conformity to RoHS Directive

For 698-1607MHz / 2400-5850MHz

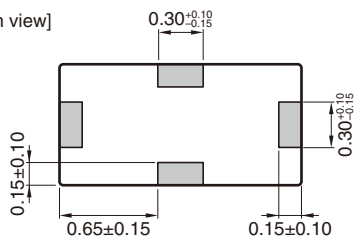
DPX165850DT-8032A1

SHAPES AND DIMENSIONS

[Top view]



[Bottom view]

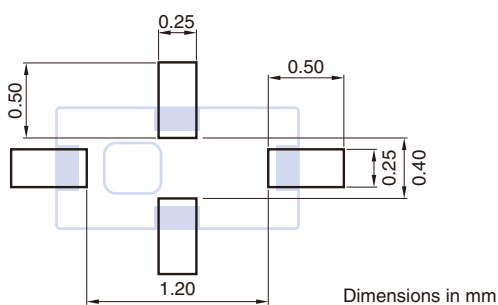


Dimensions in mm

Terminal functions

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

RECOMMENDED LAND PATTERN



Dimensions in mm

○ 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.

DPX165850DT-8032A1

ELECTRICAL CHARACTERISTICS

LOW-BAND

| Item | Frequency Range (MHz) | Min. | Typ. | Max. |
|---------------------------------------|-----------------------|------|--------------|---------------------|
| Insertion Loss (dB) | 698 to 960 | — | 0.23 | 0.40 |
| | 1427 to 1511 | — | 0.39 | 0.55 |
| | 1560 to 1607 | — | 0.46 | 0.65 |
| | 698 to 960 | — | — | 0.50 (–40 to +85°C) |
| | 1427 to 1511 | — | — | 0.70 (–40 to +85°C) |
| | 1560 to 1607 | — | — | 0.80 (–40 to +85°C) |
| Return Loss (dB) | 698 to 960 | 9.54 | 28.2 | — |
| | 1427 to 1511 | 9.54 | 34.6 | — |
| | 1560 to 1607 | 9.54 | 30.4 | — |
| Attenuation (dB) | 2400 to 2500 | 20 | 24 | — |
| | 2620 to 2690 | 20 | 23 | — |
| | 5150 to 5850 | 13 | 21 | — |
| Power Handling (W) | | — | — | 3.0 |
| Characteristic Impedance (Ω) | | | 50 (Nominal) | |

· Ta: +25±5°C

HIGH-BAND

| Item | Frequency Range (MHz) | Min. | Typ. | Max. |
|---------------------------------------|-----------------------|------|--------------|---------------------|
| Insertion Loss (dB) | 2400 to 2500 | — | 0.49 | 0.70 |
| | 2620 to 2690 | — | 0.34 | 0.60 |
| | 5150 to 5850 | — | 0.34 | 0.80 |
| | 2400 to 2500 | — | — | 0.85 (–40 to +85°C) |
| | 2620 to 2690 | — | — | 0.75 (–40 to +85°C) |
| | 5150 to 5850 | — | — | 1.00 (–40 to +85°C) |
| Return Loss (dB) | 2400 to 2500 | 9.54 | 20.1 | — |
| | 2620 to 2690 | 9.54 | 27.8 | — |
| | 5150 to 5850 | 9.54 | 15.6 | — |
| Attenuation (dB) | 698 to 960 | 15 | 18 | — |
| | 1427 to 1511 | 15 | 23 | — |
| | 1560 to 1607 | 20 | 30 | — |
| Power Handling (W) | | — | — | 3.0 |
| Characteristic Impedance (Ω) | | | 50 (Nominal) | |

· Ta: +25±5°C

TEMPERATURE RANGE

| Operating temperature (°C) | Storage temperature (°C) |
|----------------------------|--------------------------|
| –40 to +85 | –40 to +85 |

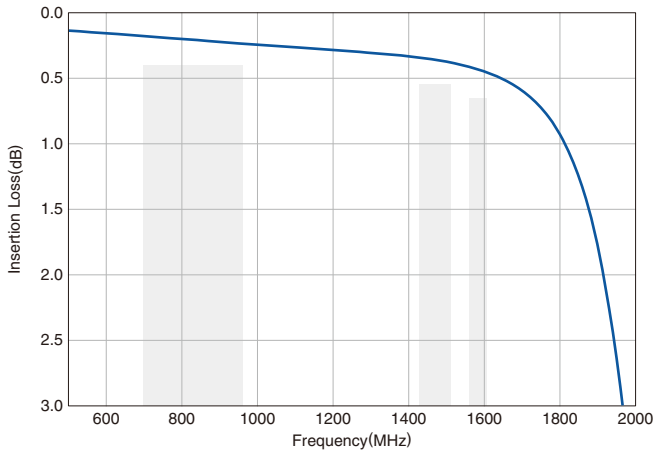
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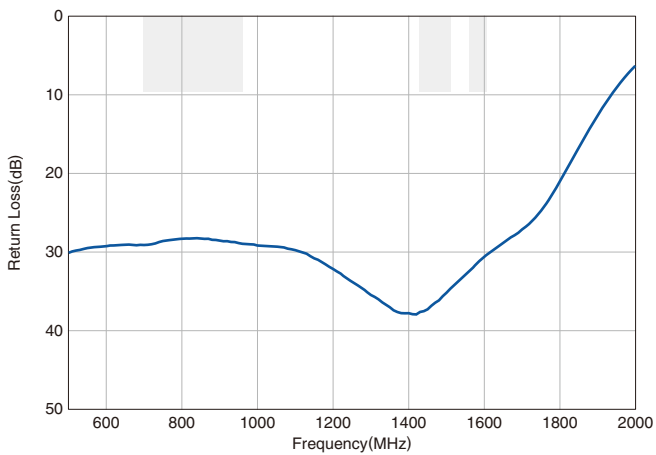
FREQUENCY CHARACTERISTICS

LOW-BAND

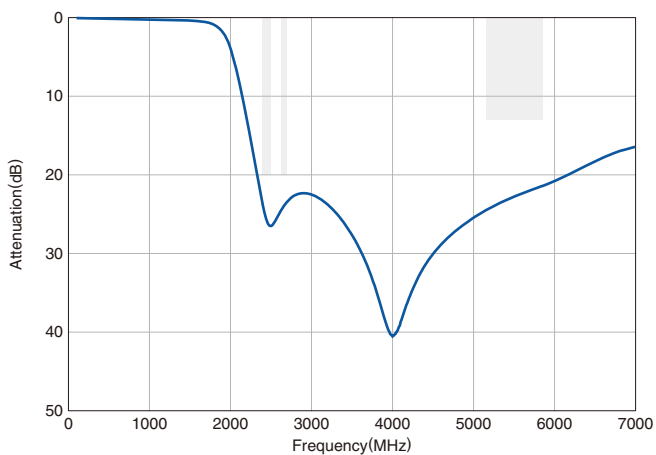
Insertion Loss



Return Loss

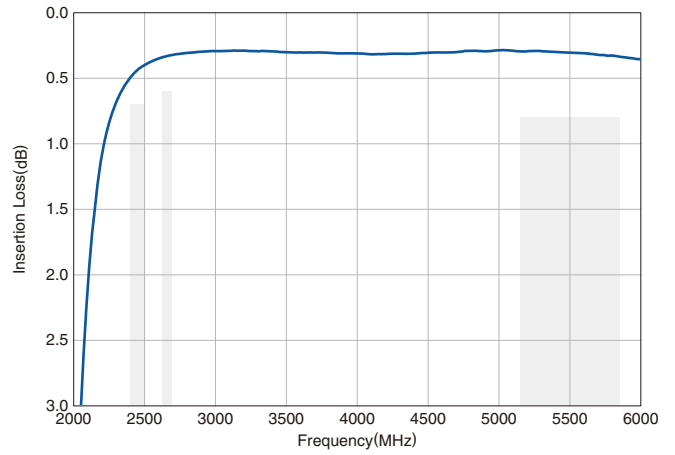


Attenuation

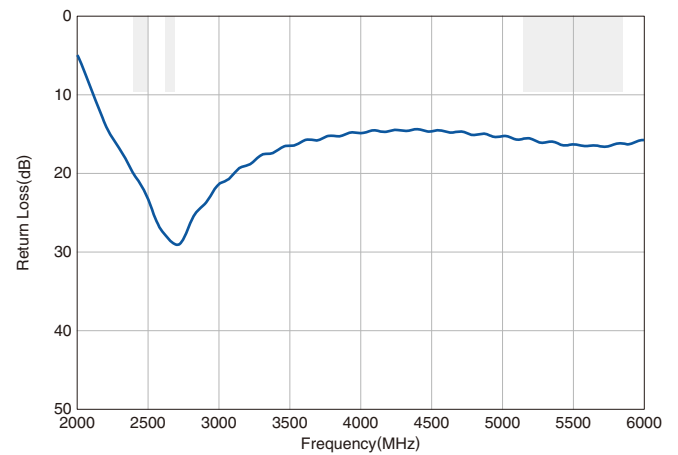


HIGH-BAND

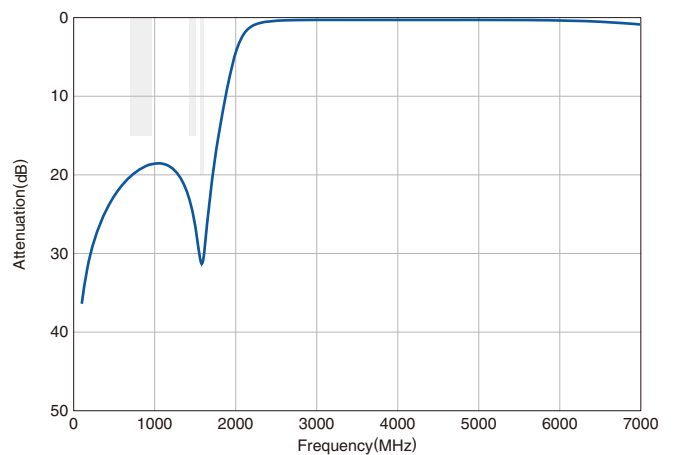
Insertion Loss



Return Loss



Attenuation



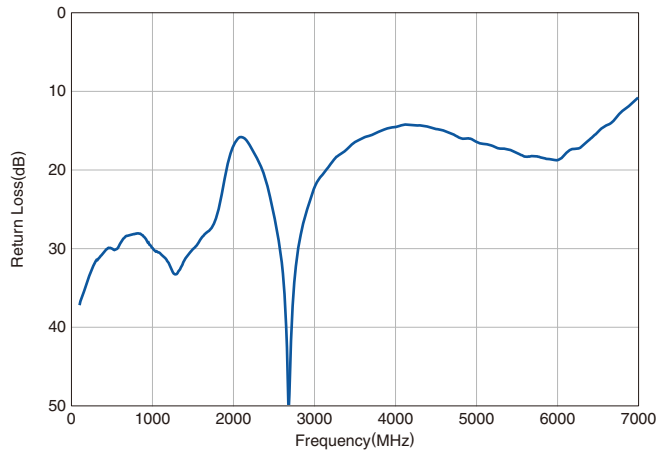
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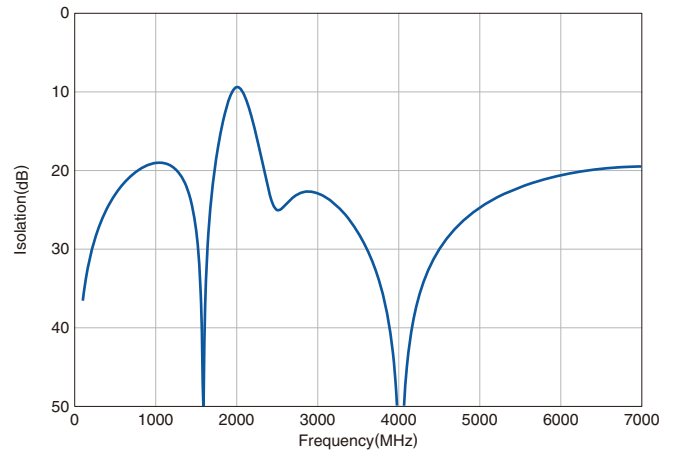
FREQUENCY CHARACTERISTICS

COMMON

Return Loss

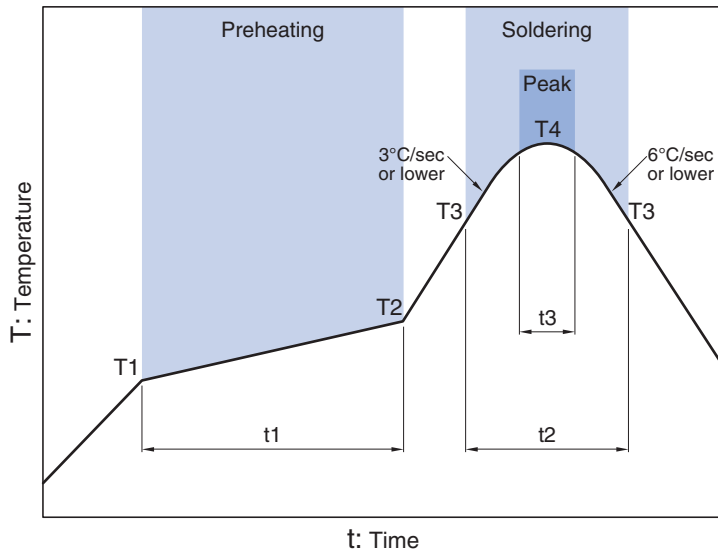


Isolation



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

RECOMMENDED REFLOW PROFILE



| Preheating | | | Soldering | | | |
|------------|-------|--------------|--------------------------|--------------|--------------|------------|
| Temp. | Temp. | Time | Critical zone (T3 to T4) | | Temp. | Time |
| T1 | T2 | t1 | T3 | t2 | T4 | t3* |
| 150°C | 200°C | 60 to 120sec | 217°C | 60 to 120sec | 240 to 260°C | 30sec max. |

* t3 : Time within 5°C of actual peak temperature
 The maximum number of reflow is 3.

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.

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