



Multilayer Diplexer

For 698-1616MHz / 1920-2700MHz

DPX202700DT-4035B5

2.0x1.25mm [EIA 0805]*

* Dimensions Code JIS[EIA]

Multilayer Diplexer

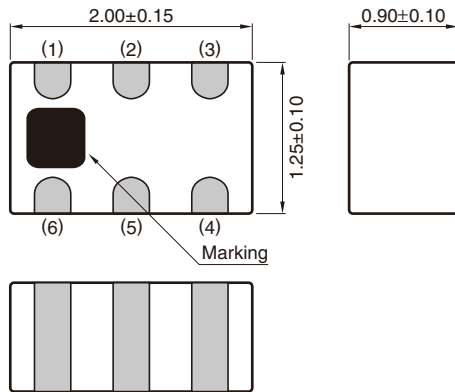
Conformity to RoHS Directive

For 698-1616MHz / 1920-2700MHz

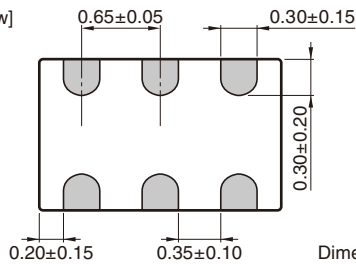
DPX202700DT-4035B5

SHAPES AND DIMENSIONS

[Top view]



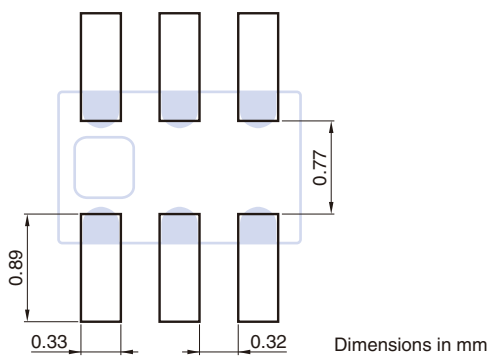
[Bottom view]



Terminal functions

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

RECOMMENDED LAND PATTERN



○ 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.

DPX202700DT-4035B5

ELECTRICAL CHARACTERISTICS

LOW-BAND

| Item | Frequency Range (MHz) | Min. | Typ. | Max. |
|------------------------------|-----------------------|------|--------------|---------------------|
| Insertion Loss (dB) | 698 to 960 | — | 0.31 | 0.50 |
| | 960 to 1572 | — | 0.57 | 0.85 |
| | 1572 to 1578 | — | 0.57 | 0.85 |
| | 1605 to 1616 | — | 0.75 | 1.10 |
| | 698 to 960 | — | — | 0.60 (−40 to +85°C) |
| | 960 to 1572 | — | — | 1.05 (−40 to +85°C) |
| | 1572 to 1578 | — | — | 1.05 (−40 to +85°C) |
| | 1605 to 1616 | — | — | 1.30 (−40 to +85°C) |
| Return Loss (dB) | 698 to 960 | 9.54 | 40.1 | — |
| | 960 to 1572 | 9.54 | 25.7 | — |
| | 1572 to 1578 | 9.54 | 24.3 | — |
| | 1605 to 1616 | 9.54 | 23.1 | — |
| Attenuation (dB) | 1920 to 1990 | 13 | 22 | — |
| | 2010 to 2025 | 10 | 16 | — |
| | 2110 to 2170 | 10 | 15 | — |
| | 2300 to 2700 | 10 | 14 | — |
| Characteristic Impedance (Ω) | | | 50 (Nominal) | |

· Ta: +25±5°C

HIGH-BAND

| Item | Frequency Range (MHz) | Min. | Typ. | Max. |
|------------------------------|-----------------------|------|--------------|---------------------|
| Insertion Loss (dB) | 1920 to 1990 | — | 0.74 | 1.10 |
| | 2010 to 2025 | — | 0.54 | 0.80 |
| | 2110 to 2170 | — | 0.52 | 0.80 |
| | 2300 to 2700 | — | 0.53 | 0.80 |
| | 1920 to 1990 | — | — | 1.30 (−40 to +85°C) |
| | 2010 to 2025 | — | — | 1.00 (−40 to +85°C) |
| | 2110 to 2170 | — | — | 1.00 (−40 to +85°C) |
| | 2300 to 2700 | — | — | 1.00 (−40 to +85°C) |
| Return Loss (dB) | 1920 to 1990 | 9.54 | 18.0 | — |
| | 2010 to 2025 | 9.54 | 16.8 | — |
| | 2110 to 2170 | 9.54 | 14.1 | — |
| | 2300 to 2700 | 8.52 | 11.5 | — |
| Attenuation (dB) | 698 to 960 | 10 | 14 | — |
| | 960 to 1572 | 10 | 14 | — |
| | 1572 to 1578 | 18 | 30 | — |
| | 1605 to 1616 | 13 | 25 | — |
| Characteristic Impedance (Ω) | | | 50 (Nominal) | |

· Ta: +25±5°C

TEMPERATURE RANGE

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

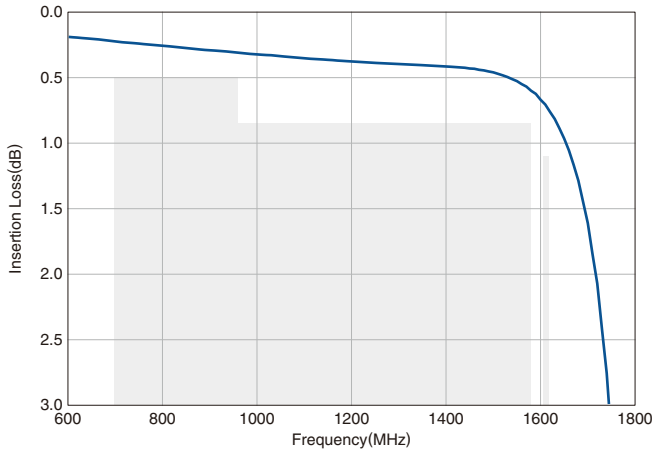
- All specifications are subject to change without notice.
- Before using these products, be sure to request the delivery specifications.

DPX202700DT-4035B5

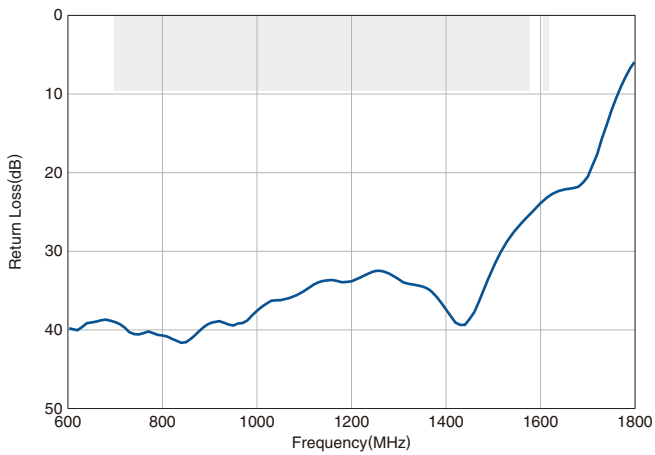
FREQUENCY CHARACTERISTICS

LOW-BAND

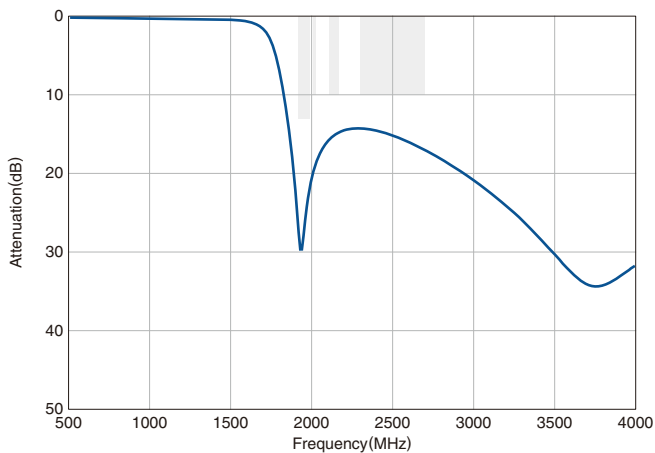
Insertion Loss



Return Loss

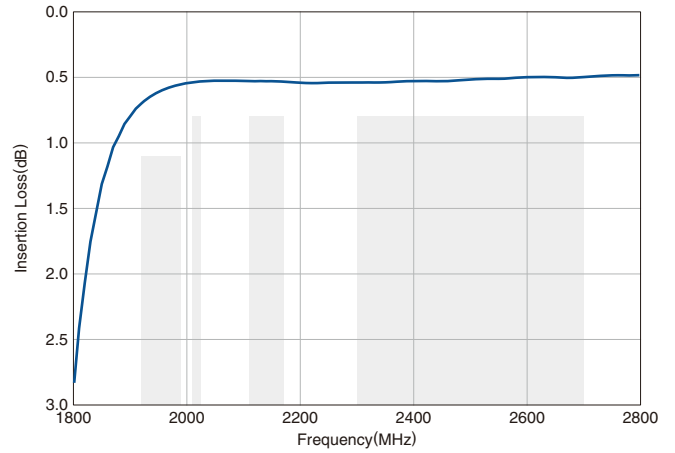


Attenuation

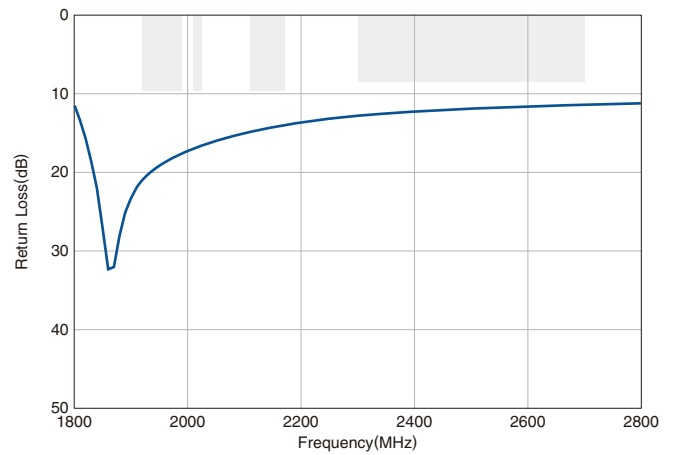


HIGH-BAND

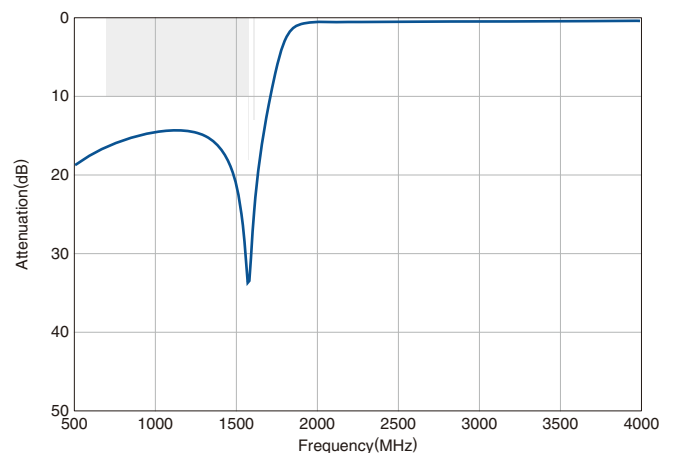
Insertion Loss



Return Loss



Attenuation



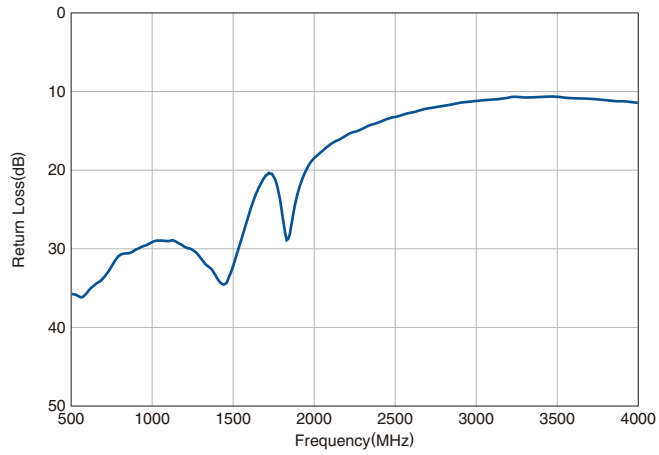
- All specifications are subject to change without notice.
- Before using these products, be sure to request the delivery specifications.

DPX202700DT-4035B5

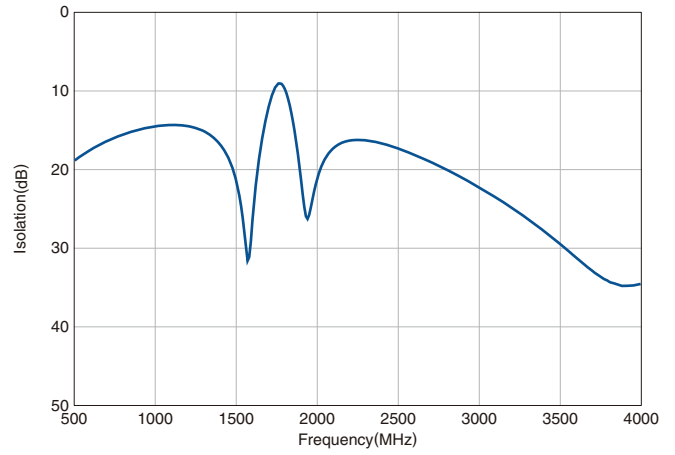
FREQUENCY CHARACTERISTICS

COMMON

Return Loss

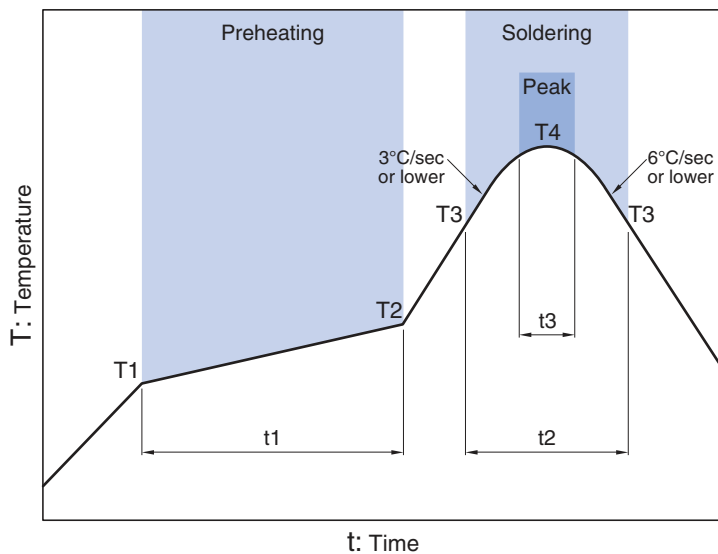


Isolation



- 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. | Time | | Critical zone (T3 to T4) | | Peak | |
| T1 | T2 | t1 | Temp. | Time | Temp. | Time |
| 150°C | 200°C | 60 to 120sec | T3 | t2 | T4 | t3* |
| | | | 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.