

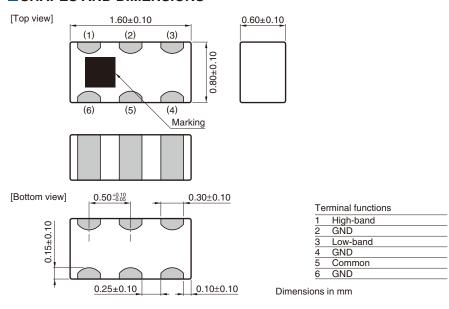
# **Multilayer Diplexer**

For 1572-1578MHz / 2400-2500MHz

#### **Conformity to RoHS Directive**

# DPX162500DT-8128A1

### **SHAPES AND DIMENSIONS**



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

<sup>•</sup> All specifications are subject to change without notice.

<sup>•</sup> Before using these products, be sure to request the delivery specifications.



# DPX162500DT-8128A1

## **ELECTRICAL CHARACTERISTICS**

### □LOW-BAND

| Item                         | Frequency Range<br>(MHz) | Min.  | Тур.         | Max.                |
|------------------------------|--------------------------|-------|--------------|---------------------|
| Insertion Loss (dB)          | 1572 to 1578             | _     | 0.31         | 0.35                |
|                              | 1572 to 1578             | _     | _            | 0.40 (-40 to +85°C) |
| Return Loss (dB)             | 1572 to 1578             | 13.98 | 26.4         | _                   |
| Attenuation (dB)             | 2400 to 2500             | 13    | 22.4         | _                   |
| Characteristic Impedance (Ω) |                          |       | 50 (Nominal) |                     |

<sup>·</sup> Ta: +25±5°C

### □HIGH-BAND

| ltem                         | Frequency Range<br>(MHz) | Min.  | Тур.         | Max.                |
|------------------------------|--------------------------|-------|--------------|---------------------|
| Insertion Loss (dB)          | 2400 to 2500             | _     | 0.42         | 0.50                |
|                              | 2400 to 2500             | _     | _            | 0.60 (-40 to +85°C) |
| Return Loss (dB)             | 2400 to 2500             | 13.98 | 22.6         | _                   |
| Attenuation (dB)             | 1572 to 1578             | 22    | 36.6         | _                   |
| Characteristic Impedance (Ω) |                          |       | 50 (Nominal) |                     |

<sup>·</sup> Ta: +25±5°C

#### □ COMMON

| Item                                | Frequency Range<br>(MHz) | Min.         | Тур. | Max. |
|-------------------------------------|--------------------------|--------------|------|------|
| Return Loss (dB)                    | 1572 to 1578             | 13.98        | 27.3 | _    |
|                                     | 2400 to 2500             | 13.98        | 21.2 | _    |
| Power Handling (W)                  |                          | _            | _    | 3    |
| Characteristic Impedance $(\Omega)$ |                          | 50 (Nominal) |      |      |

<sup>·</sup> Ta: +25±5°C

## **■TEMPERATURE RANGE**

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

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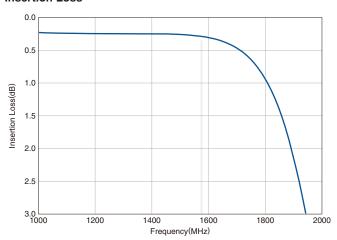
## **公TDK**

# DPX162500DT-8128A1

### FREQUENCY CHARACTERISTICS

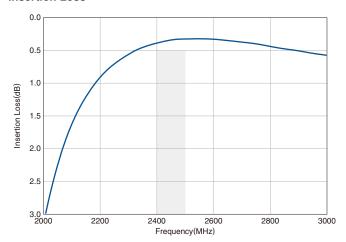
#### **LOW-BAND**

#### Insertion Loss

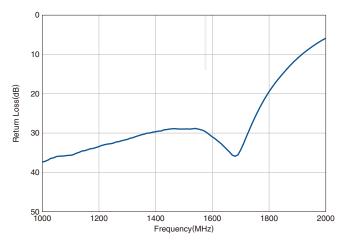


#### ☐HIGH-BAND

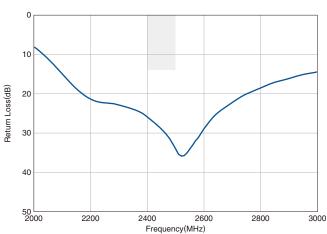
#### **Insertion Loss**



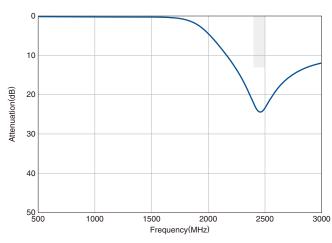
#### **Return Loss**



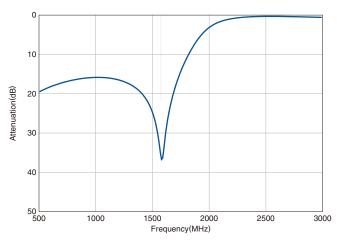
#### **Return Loss**



#### **Attenuation**



#### **Attenuation**



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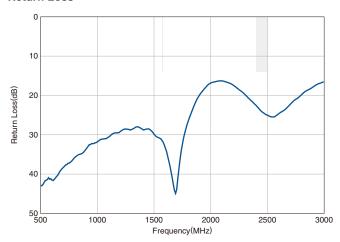


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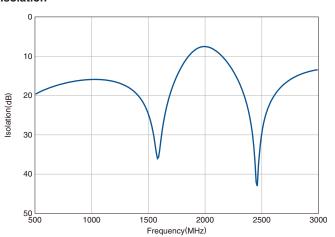
## **■ FREQUENCY CHARACTERISTICS**

### □ COMMON

#### **Return Loss**



#### Isolation

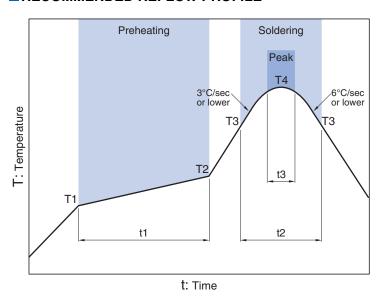


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## ■ RECOMMENDED REFLOW PROFILE



| Preheating |       |              | Soldering Critical zone (T3 to T4) Peak |              |              |            |
|------------|-------|--------------|---|--------------|--------------|------------|
| Temp.      |       | Time         | Temp.                                   | Time         | Temp.        | Time       |
| T1         | T2    | t1           | Т3                                      | t2           | T4           | t3*        |
| 150°C      | 200°C | 60 to 120sec | 217°C                                   | 60 to 120sec | 240 to 260°C | 30sec max. |

<sup>\*</sup>t3: Time within 5°C of actual peak temperature

The maximum number of reflow is 3.

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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
- (2) Transportation equipment (cars, electric trains, ships, etc.)
- (3) Medical equipment
- (4) Power-generation control equipment
- (5) Atomic energy-related equipment
- (6) Seabed equipment
- (7) Transportation control equipment

- (8) Public information-processing equipment
- (9) Military equipment
- (10) Electric heating apparatus, burning equipment
- (11) Disaster prevention/crime prevention equipment
- (12) Safety equipment
- (13) Other applications that are not considered general-purpose applications

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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