



# Multilayer Diplexer

For 2400-2500MHz / 5150-5850MHz

# DPX205850DT-9038A1-H

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**2.0x1.25mm [EIA 0805]\***

\* Dimensions Code JIS[EIA]

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# Multilayer Diplexer

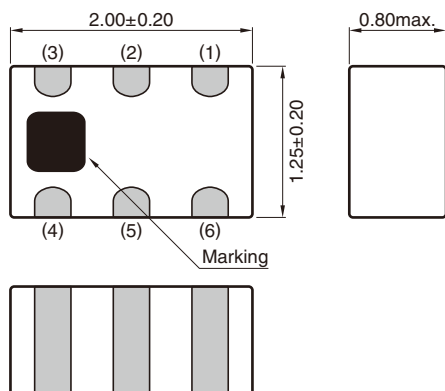
Conformity to RoHS Directive

For 2400-2500MHz / 5150-5850MHz

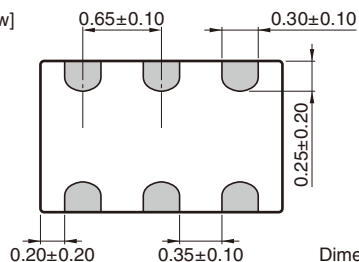
## DPX205850DT-9038A1-H

### SHAPES AND DIMENSIONS

[Top view]



[Bottom view]

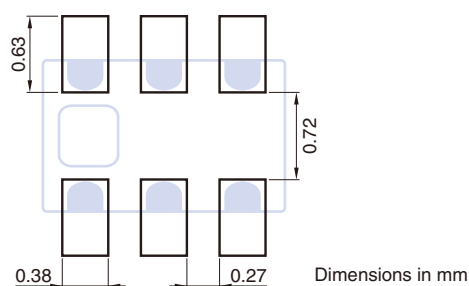


Terminal functions

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

Dimensions in mm

### 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.

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## ELECTRICAL CHARACTERISTICS

### LOW-BAND

Item	Frequency Range (MHz)	Min.	Typ.	Max.
Insertion Loss (dB)	2400 to 2500	—	2.00	2.20
	2400 to 2500	—	—	2.40 (−40 to +85°C)
Attenuation (dB)	824 to 915	30	38	—
	1545 to 1610	30	34	—
	1710 to 1990	30	35	—
	2110 to 2170	25	30	—
	3200 to 3600	15	17	—
	3700 to 3900	12	25	—
	4800 to 5000	28	36	—
	7200 to 7500	25	29	—
Characteristic Impedance ( $\Omega$ )			50 (Nominal)	

• Ta: +25±5°C

### HIGH-BAND

Item	Frequency Range (MHz)	Min.	Typ.	Max.
Insertion Loss (dB)	5150 to 5850	—	0.77	1.20
	5150 to 5850	—	—	1.50 (−40 to +85°C)
Attenuation (dB)	1545 to 1610	20	38	—
	1710 to 1990	20	29	—
	2110 to 2170	20	25	—
	2400 to 2500	23	26	—
	3450 to 3900	8	10	—
	7250 to 7800	8	26	—
	9800 to 11700	20	31	—
Characteristic Impedance ( $\Omega$ )			50 (Nominal)	

• Ta: +25±5°C

### COMMON

Item	Frequency Range (MHz)	Min.	Typ.	Max.
Return Loss (dB)	2400 to 2500	9.54	16.8	—
	5150 to 5850	9.54	13.3	—
Characteristic Impedance ( $\Omega$ )			50 (Nominal)	

• Ta: +25±5°C

## TEMPERATURE RANGE

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

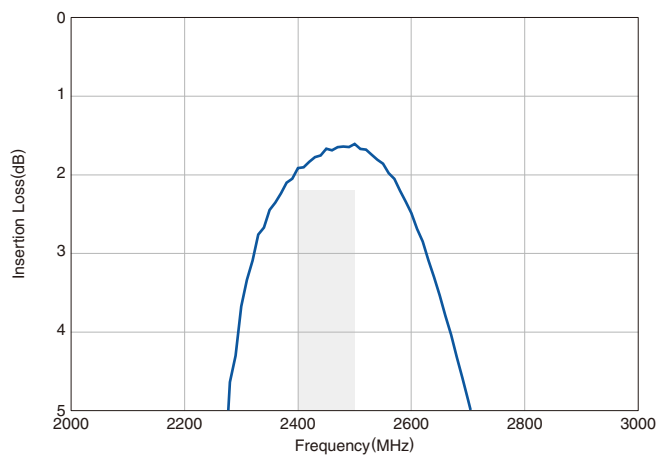
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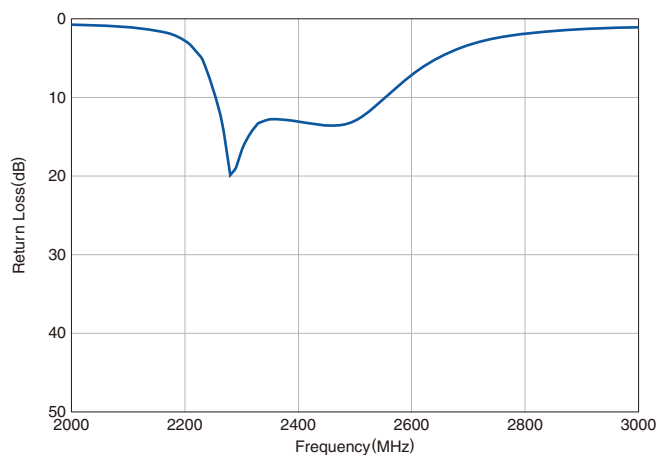
## FREQUENCY CHARACTERISTICS

## LOW-BAND

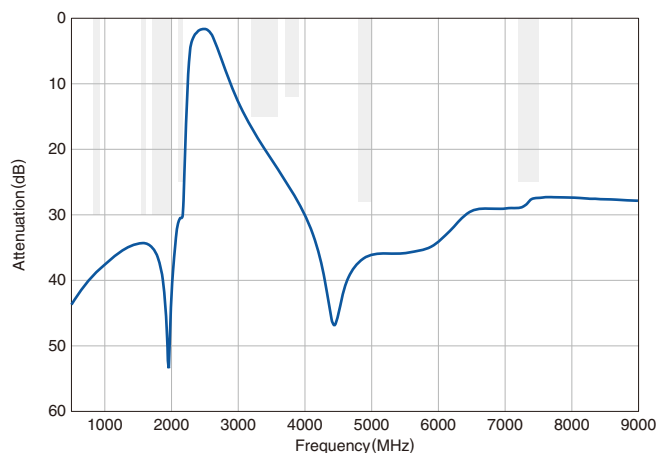
## Insertion Loss



## Return Loss

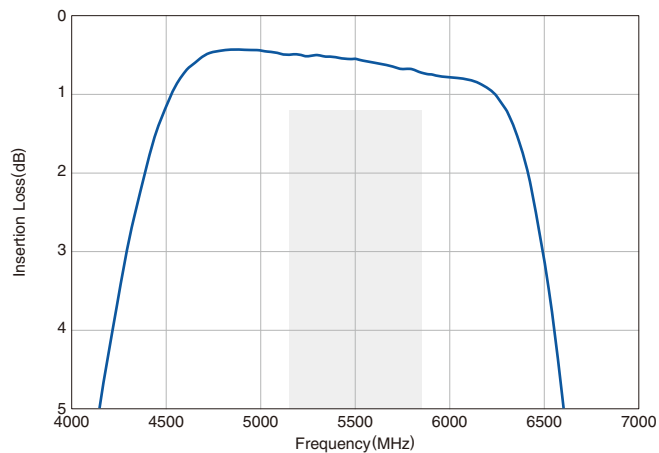


## Attenuation

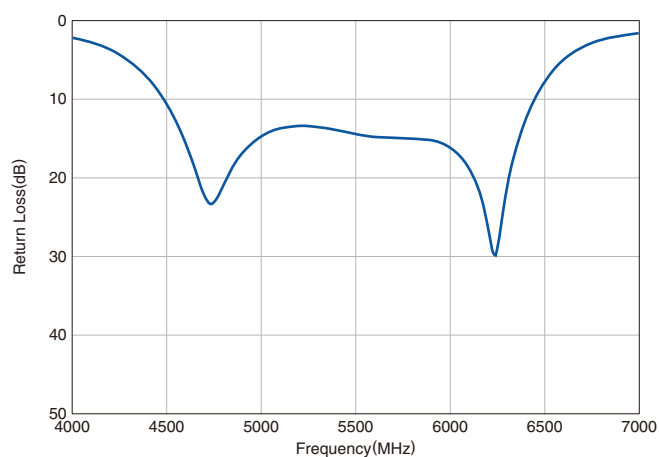


## HIGH-BAND

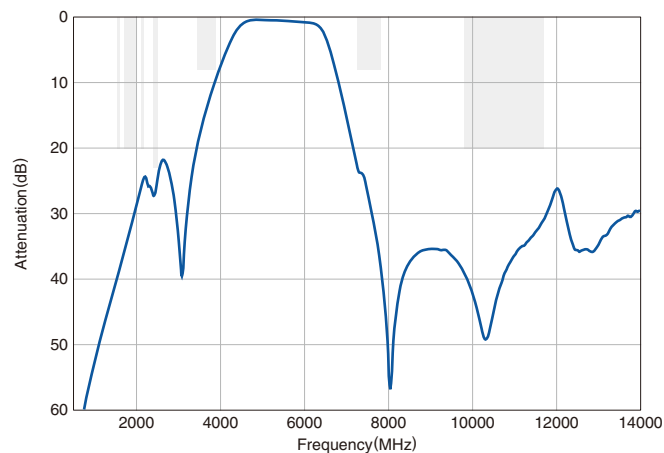
## Insertion Loss



## Return Loss



## Attenuation



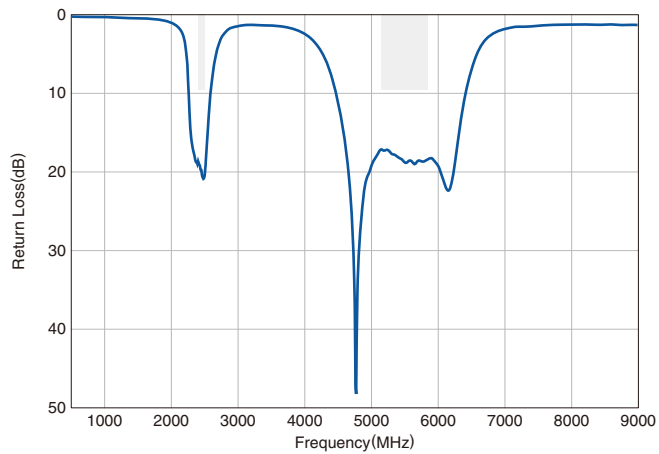
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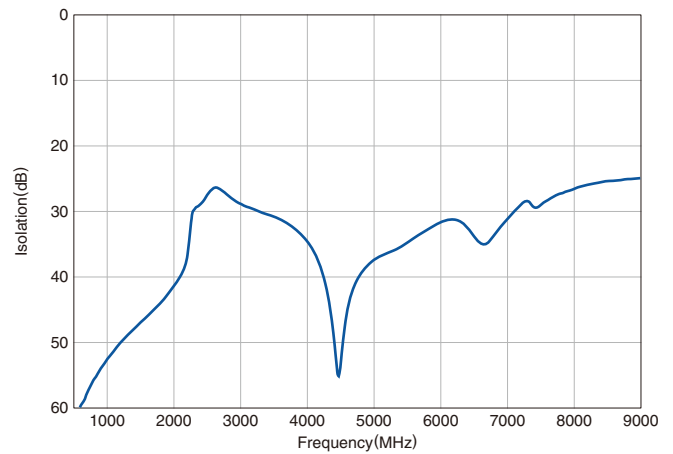
## FREQUENCY CHARACTERISTICS

## COMMON

## Return Loss



## Isolation



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RECOMMENDED REFLOW PROFILE



Preheating			Soldering			
			Critical zone (T3 to T4)		Peak	
Temp.		Time	Temp.	Time	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.