



# Multilayer Diplexer

For 699-960MHz / 1427-2690MHz

# DPX252690DT-5042B2

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**2.5x2.0mm [EIA 1008]\***

\* Dimensions Code JIS[EIA]

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# Multilayer Diplexer

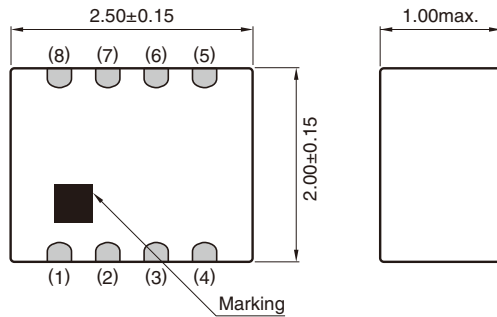
Conformity to RoHS Directive

For 699-960MHz / 1427-2690MHz

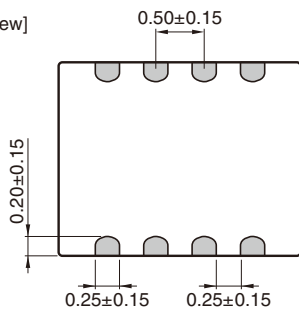
## DPX252690DT-5042B2

### SHAPES AND DIMENSIONS

[Top view]



[Bottom view]

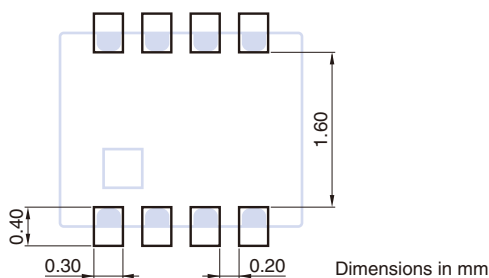


#### Terminal functions

1	GND
2	GND
3	Common
4	GND
5	High-band
6	GND
7	GND
8	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.

# DPX252690DT-5042B2

## ELECTRICAL CHARACTERISTICS

### LOW-BAND

Item	Frequency Range (MHz)	Min.	Typ.	Max.
Insertion Loss (dB)	699 to 814	—	0.26	0.40
	814 to 960	—	0.41	0.55
	699 to 814	—	—	0.50 (−40 to +85°C)
	814 to 960	—	—	0.65 (−40 to +85°C)
Attenuation (dB)	1436 to 1496	25	33	—
	1544 to 1574	20	29	—
	1648 to 1830	20	27	—
	2097 to 2148	25	30	—
	2442 to 2484	35	39	—
	2484 to 2745	20	35	—
	3256 to 3660	20	26	—
	4070 to 4575	25	28	—
	4944 to 5450	30	37	—
	5450 to 5850	25	33	—
Characteristic Impedance (Ω)			50 (Nominal)	

· Ta: +25±5°C

### HIGH-BAND

Item	Frequency Range (MHz)	Min.	Typ.	Max.
Insertion Loss (dB)	1427 to 1710	—	0.61	0.75
	1710 to 2170	—	0.43	0.60
	2500 to 2575	—	0.46	0.65
	2575 to 2620	—	0.46	0.70
	2620 to 2690	—	0.49	0.80
	1427 to 1710	—	—	0.85 (−40 to +85°C)
	1710 to 2170	—	—	0.70 (−40 to +85°C)
	2500 to 2575	—	—	0.75 (−40 to +85°C)
	2575 to 2620	—	—	0.80 (−40 to +85°C)
	2620 to 2690	—	—	0.90 (−40 to +85°C)
Attenuation (dB)	814 to 960	20	39	—
	3420 to 3820	8	10	—
	3840 to 3960	8	24	—
	5000 to 5850	20	24	—
Characteristic Impedance (Ω)			50 (Nominal)	

· Ta: +25±5°C

### COMMON

Item	Frequency Range (MHz)	Min.	Typ.	Max.
Isolation (dB)	699 to 960	20	38	—
	1427 to 2690	20	27	—
Characteristic Impedance (Ω)			50 (Nominal)	

· Ta: +25±5°C

## TEMPERATURE RANGE

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

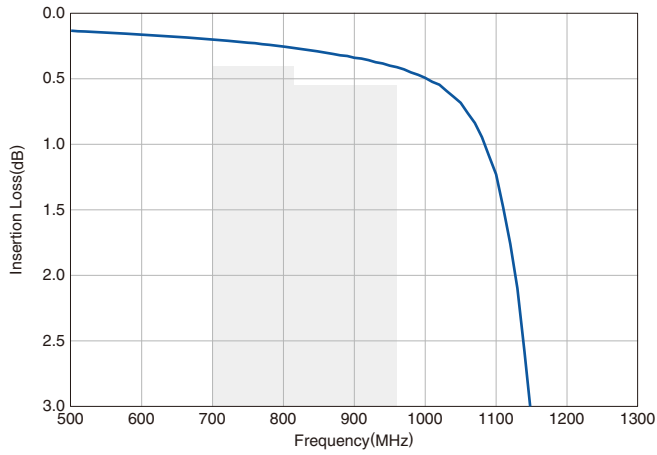
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# DPX252690DT-5042B2

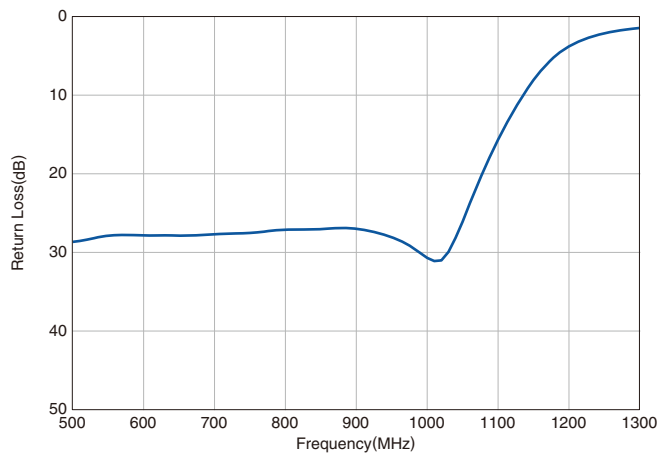
## FREQUENCY CHARACTERISTICS

### LOW-BAND

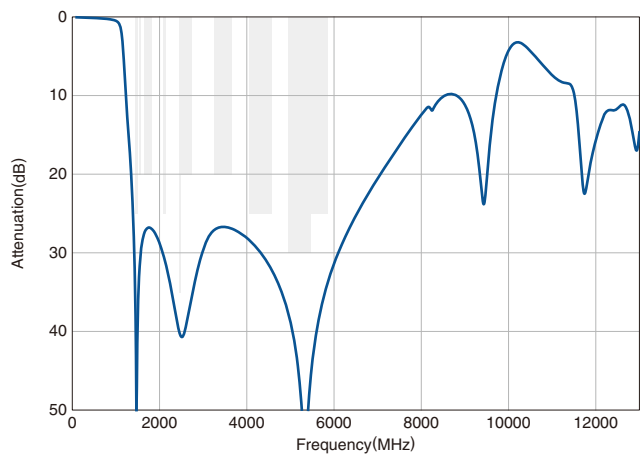
#### Insertion Loss



#### Return Loss

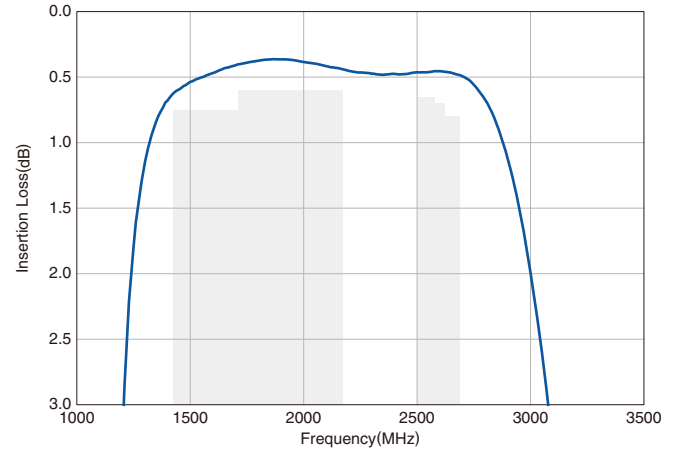


#### Attenuation

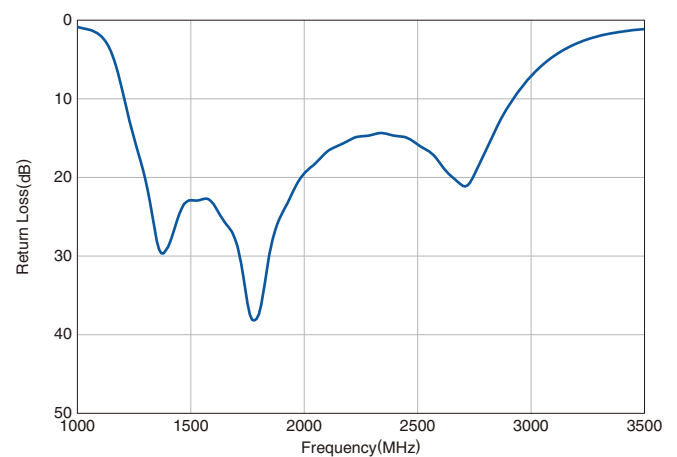


### HIGH-BAND

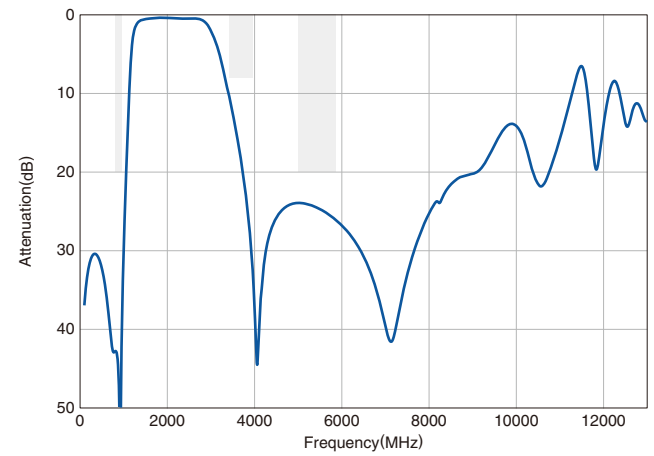
#### Insertion Loss



#### Return Loss



#### Attenuation



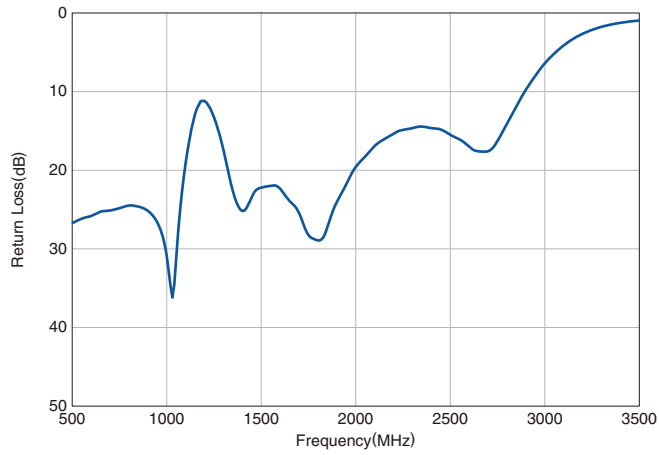
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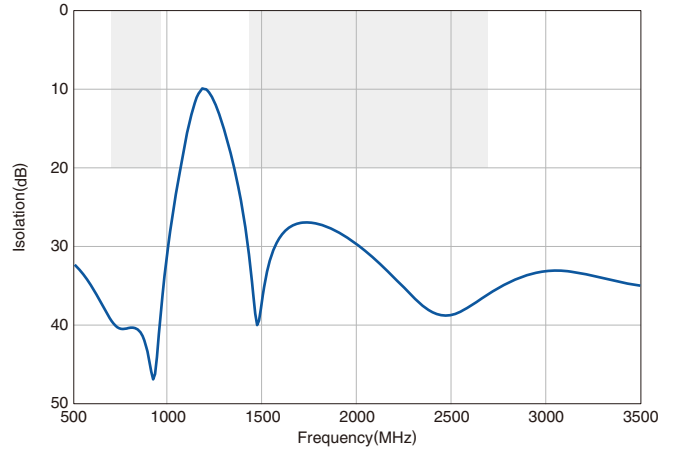
## FREQUENCY CHARACTERISTICS

COMMON

Return Loss

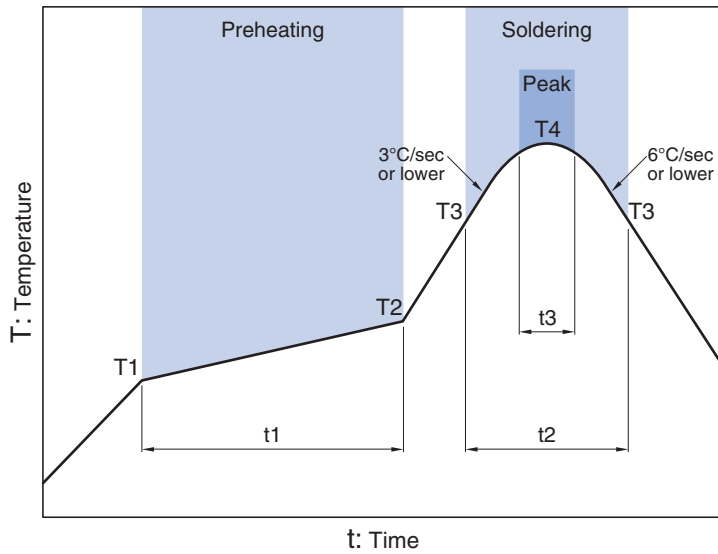


Isolation



- All specifications are subject to change without notice.
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**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.