



# Multilayer Diplexer

For 791-2690MHz / 4900-5950MHz

# DPX165950DT-8030D1

1.6x0.8mm [EIA 0603]\*

\* Dimensions Code JIS[EIA]

## Caution

**The products in this catalog will be or have been stopped production**

Discontinue Issue Date	Sep. 20, 2019
Last Purchase Order Date	Sep. 30, 2020
Last Shipment Date	Dec. 31, 2020

Please refer to our Web site about replacement information.

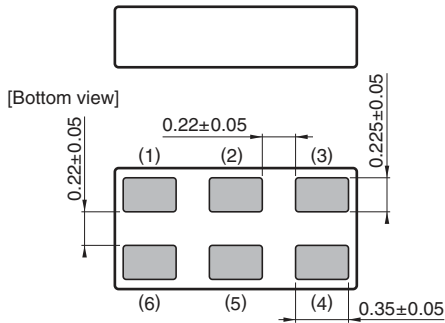
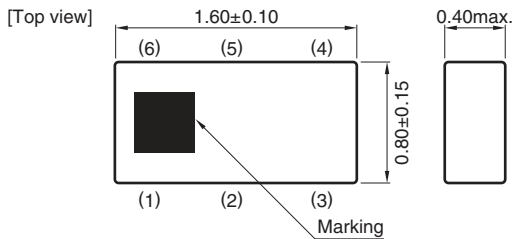
## Multilayer Diplexer

Conformity to RoHS Directive

For 791-2690MHz / 4900-5950MHz

## DPX165950DT-8030D1

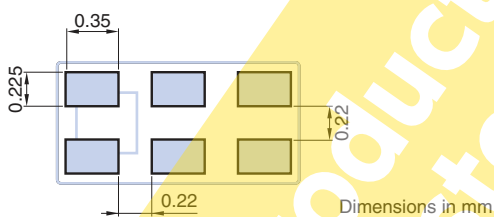
## SHAPES AND DIMENSIONS



## Terminal functions

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

## 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.

## DPX165950DT-8030D1

## ELECTRICAL CHARACTERISTICS

## LOW-BAND

Item	Frequency Range (MHz)	Min.	Typ.	Max.
Insertion Loss (dB)	791 to 2690	—	0.43	0.50
	791 to 2690	—	—	0.70 (−40 to +85°C)
Return Loss (dB)	791 to 2690	17.69	20.3	—
	4800 to 5150	20	25	—
Attenuation (dB)	5150 to 5850	30	33	—
	5850 to 6000	20	32	—
	7200 to 7860	20	29	—
Characteristic Impedance (Ω)			50 (Nominal)	

· Ta: +25±5°C

## HIGH-BAND

Item	Frequency Range (MHz)	Min.	Typ.	Max.
Insertion Loss (dB)	4900 to 5950	—	0.86	1.0
	4900 to 5950	—	—	1.2 (−40 to +85°C)
Return Loss (dB)	4900 to 5150	9.54	18.9	—
	5150 to 5850	11.73	14.8	—
	5850 to 5950	9.54	14.0	—
Attenuation (dB)	800 to 2500	28	31	—
	2570 to 2620	38	43	—
	3450	10	20	—
	3900	6	11	—
	7250	1	3	—
	7800	4	7	—
	9800 to 11900	20	27	—
Characteristic Impedance (Ω)			50 (Nominal)	

· Ta: +25±5°C

## COMMON

Item	Frequency Range (MHz)	Min.	Typ.	Max.
Return Loss (dB)	791 to 2690	13.98	19.1	—
	4900 to 5150	9.54	21.1	—
	5150 to 5850	13.98	15.7	—
	5850 to 5950	9.54	15.1	—
Isolation (dB)	800 to 2500	28	31	—
	2570 to 2620	34	39	—
	5150 to 5850	30	35	—
Power Handling (W)		—	—	1
Characteristic Impedance (Ω)			50 (Nominal)	

· Ta: +25±5°C

## TEMPERATURE RANGE

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

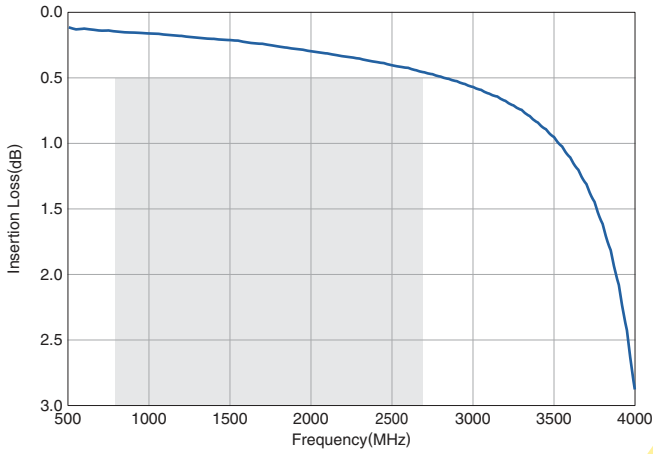
- All specifications are subject to change without notice.
- Before using these products, be sure to request the delivery specifications.

# DPX165950DT-8030D1

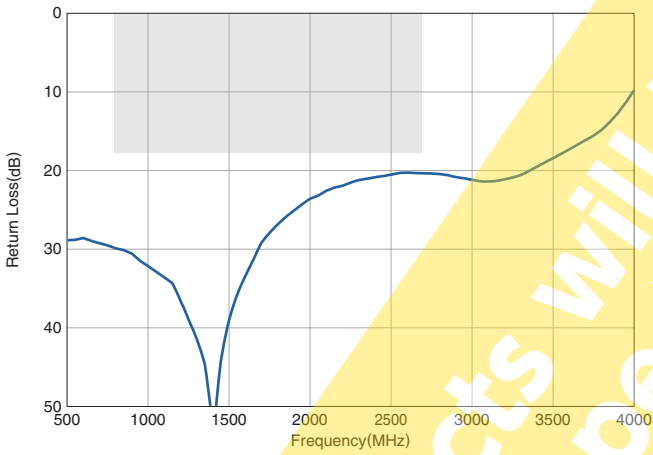
## FREQUENCY CHARACTERISTICS

### LOW-BAND

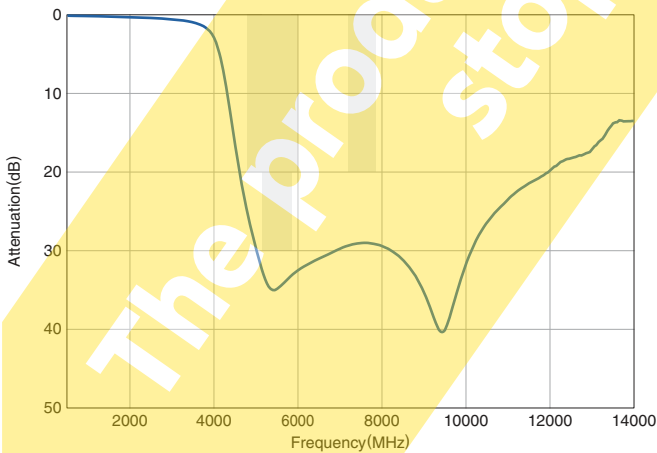
#### Insertion Loss



#### Return Loss

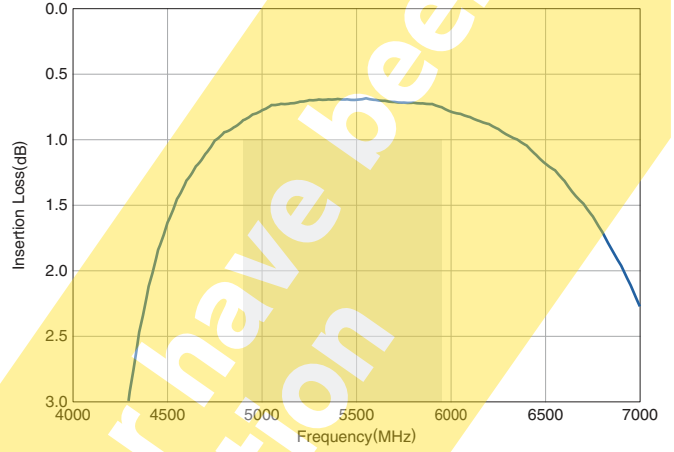


#### Attenuation

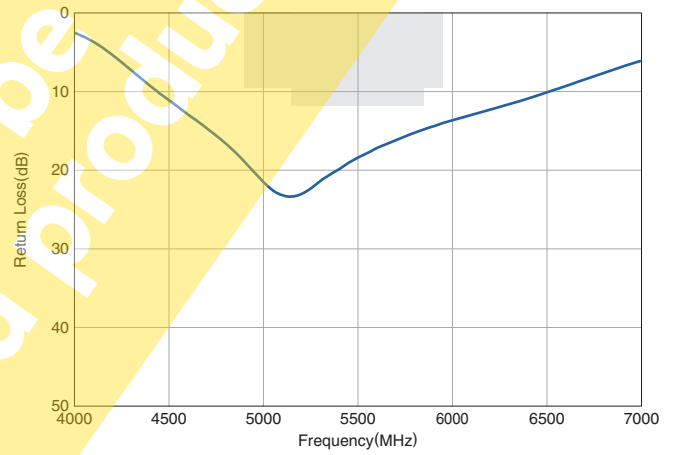


### HIGH-BAND

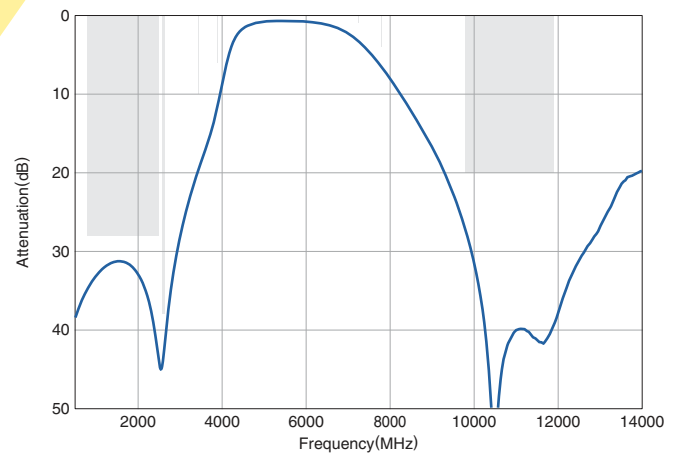
#### Insertion Loss



#### Return Loss



#### Attenuation



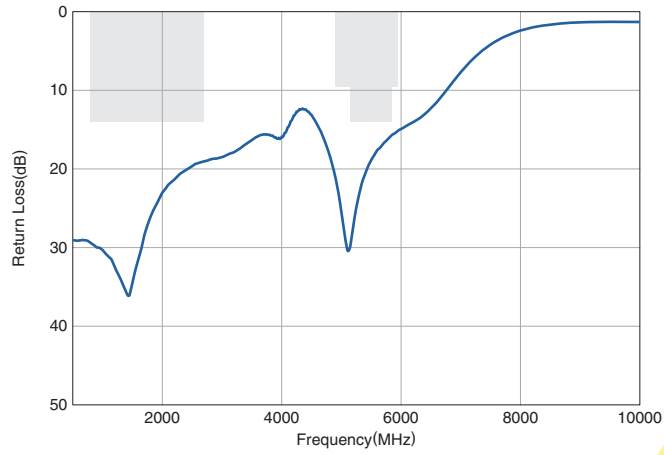
- All specifications are subject to change without notice.
- Before using these products, be sure to request the delivery specifications.

## DPX165950DT-8030D1

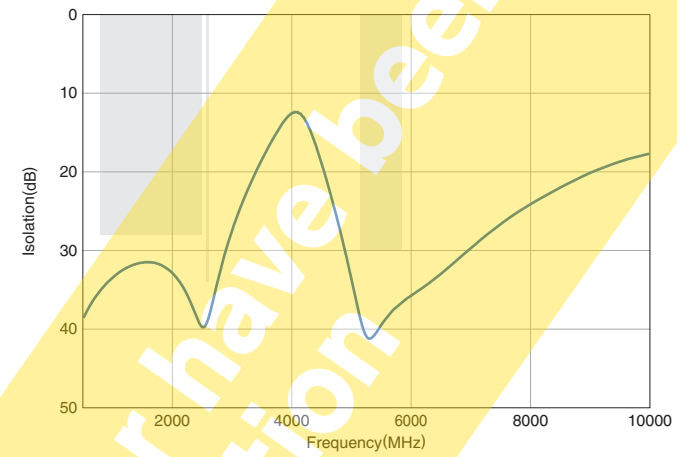
## ■ FREQUENCY CHARACTERISTICS

## □ COMMON

## Return Loss



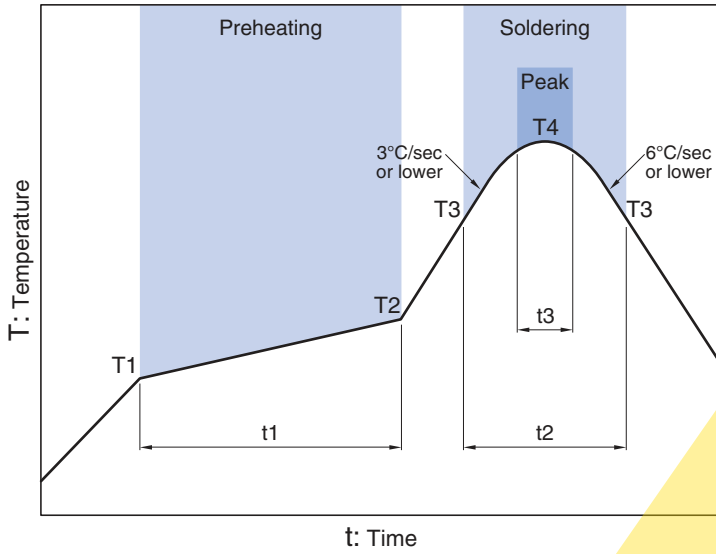
## Isolation



The products will be or have been stopped production

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

**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.

The products will be or have been stopped production

## 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.