

July 2015

# **Multilayer Diplexer**

For 2400-2500MHz / 5100-5900MHz

# DPX165900DT-8025A1

1.6x0.8mm [EIA 0603]\*

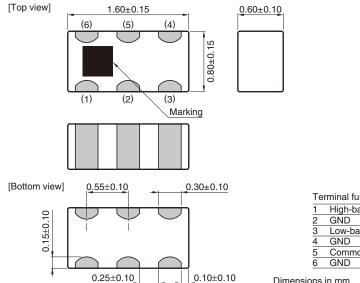
\* Dimensions Code JIS[EIA]

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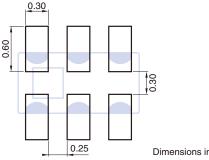
#### SHAPES AND DIMENSIONS



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

Dimensions in mm

#### RECOMMENDED LAND PATTERN



Dimensions in mm

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

**公TDK** 

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

# DPX165900DT-8025A1

#### **ELECTRICAL CHARACTERISTICS**

#### LOW-BAND

Item	Frequency Range (MHz)	Min.	Тур.	Max.
Insertion Loss (dB)	2400 to 2500	—	0.36	0.60
Attenuation (dP)	4800 to 5000	18	23.4	—
Attenuation (dB)	7200 to 7500	18	25.9	—
Characteristic Impedance (Ω)			50 (Nominal)	

• Ta: +25±5°C

#### **HIGH-BAND**

Item	Frequency Range (MHz)	Min.	Тур.	Max.
Insertion Loss (dB)	5100 to 5900	—	0.83	1.40
	1800 to 2500	20	30.8	—
Attenuation (dB)	3700 to 3900	20	29.5	—
	9800 to 11900	10	26.2	—
Characteristic Impedance ( $\Omega$ )			50 (Nominal)	

• Ta: +25±5°C

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Item	Frequency Range (MHz)	Min.	Тур.	Max.
Deturn Lass (dP)	2400 to 2500	9.54	22.1	_
Return Loss (dB)	5100 to 5900	8.09	11.6	_
Characteristic Impedance ( $\Omega$ )			50 (Nominal)	

• Ta: +25±5°C

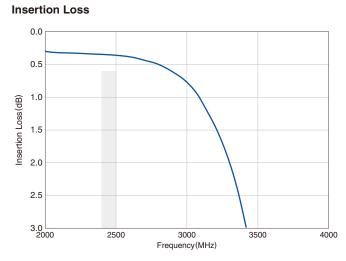
#### **TEMPERATURE RANGE**

Operating temperature	Storage temperature
(° <b>C</b> )	(°C)
-40 to +85	-40 to +85

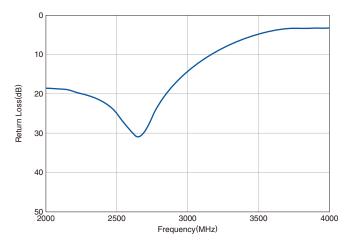
All specifications are subject to change without notice. Before using these products, be sure to request the delivery specifications.

#### FREQUENCY CHARACTERISTICS

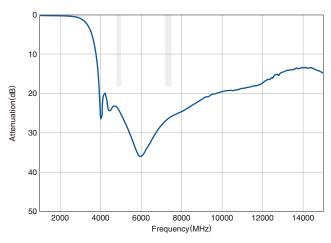
#### LOW-BAND



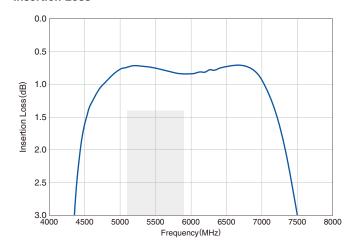




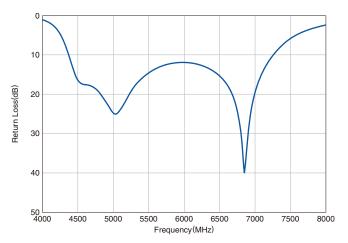




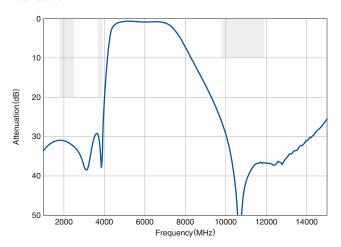




**Return Loss** 



Attenuation

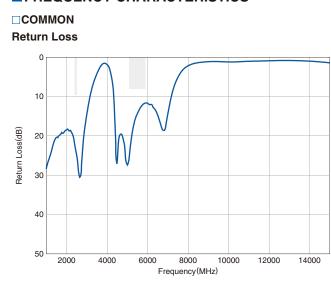


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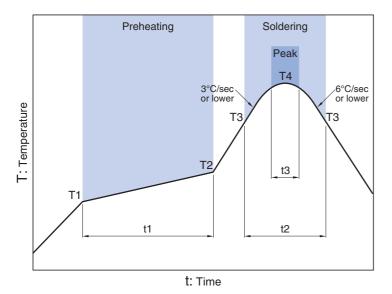


Isolation 0 10 20 Isolation(dB) 30 40 50 2000 4000 6000 8000 10000 12000 14000 Frequency(MHz)

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#### RECOMMENDED REFLOW PROFILE



Soldering Preheating Critical zone (T3 to T4) Peak Temp. Time Temp. Time Temp. Time T1 T2 **T**4 t1 ТЗ t2 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.

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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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