# imall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



# Contact us

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August 2015

# **Multilayer** Diplexer

For 704-1610MHz / 2400-5900MHz

# DPX165850DT-8033B1

1.6x0.8mm [EIA 0603]\*

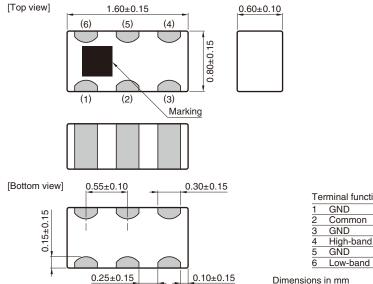
\* Dimensions Code JIS[EIA]

## **Multilayer Diplexer**

For 704-1610MHz / 2400-5900MHz

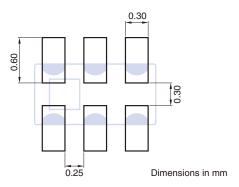
# DPX165850DT-8033B1

#### SHAPES AND DIMENSIONS



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

#### RECOMMENDED LAND PATTERN



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> All specifications are subject to change without notice.

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

# DPX165850DT-8033B1

#### **ELECTRICAL CHARACTERISTICS**

#### LOW-BAND

Item	Frequency Range (MHz)	Min.	Тур.	Max.	
	704 to 960	_	0.35	0.50	
	1572 to 1578	—	0.52	0.75	
Incention Lane (dD)	1570 to 1610		0.61	0.85	
Insertion Loss (dB)	704 to 960			0.70 (–40 to +85°C)	
	1572 to 1578			0.95 (-40 to +85°C)	
	1570 to 1610	—	_	1.05 (-40 to +85°C)	
	704 to 960	10	13.5	—	
Return Loss (dB)	1572 to 1578	10	19.1	—	
	1570 to 1610	10	16.1	_	
	2400 to 2500	15	24	<u> </u>	
	2500 to 2690	13	19		
Attenuation (dB)	4900 to 5150	18	23		
	5150 to 5850	20	28	_	
	5850 to 5900	20	28		
Characteristic Impedance (Ω)			50 (Nominal)		

• Ta: +25±5°C

#### **HIGH-BAND**

Item	Frequency Range (MHz)	Min.	Тур.	Max.
	2400 to 2500		0.64	0.75
	2500 to 2690	—	0.70	0.85
	4900 to 5150	—	0.24	0.55
	5150 to 5850	_	0.22	0.55
Incortion Loop (dP)	5850 to 5900	_	0.36	0.55
Insertion Loss (dB)	2400 to 2500	_	_	0.95 (-40 to +85°C)
	2500 to 2690			1.05 (-40 to +85°C)
	4900 to 5150			0.75 (-40 to +85°C)
	5150 to 5850	_		0.75 (-40 to +85°C)
	5850 to 5900	_		0.75 (-40 to +85°C)
	2400 to 2500	10	19.7	_
	2500 to 2690	10	12.6	<u> </u>
Return Loss (dB)	4900 to 5150	10	17.0	<u> </u>
	5150 to 5850	10	15.4	
	5850 to 5900	10	14.7	
	704 to 960	25	32	
Attenuation (dB)	1572 to 1578	20	37	_
	1570 to 1610	20	30	_
Characteristic Impedance (Ω)			50 (Nominal)	

• Ta: +25±5°C

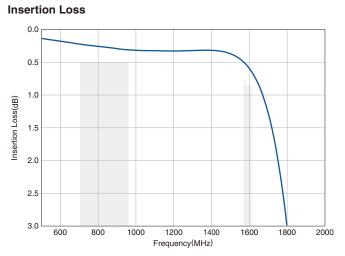
#### **TEMPERATURE RANGE**

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

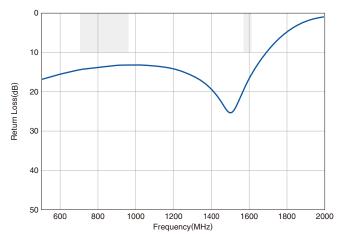
All specifications are subject to change without notice. Before using these products, be sure to request the delivery specifications.

#### FREQUENCY CHARACTERISTICS

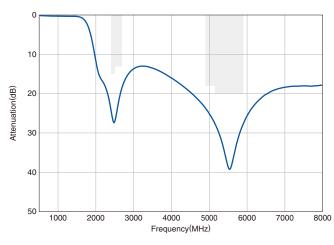


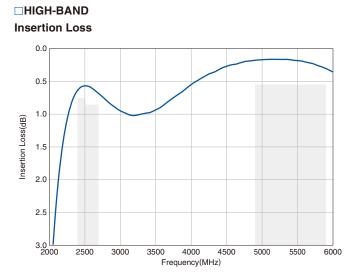


**Return Loss** 

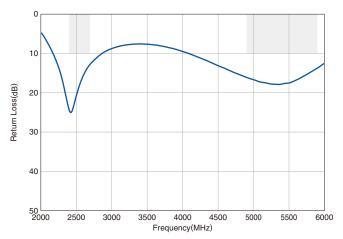


Attenuation

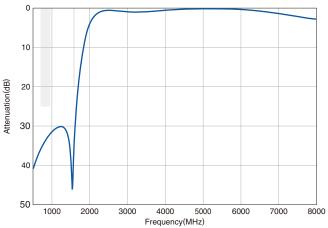




**Return Loss** 



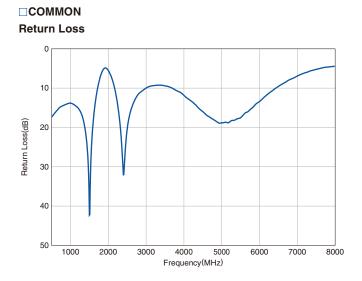
Attenuation



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#### FREQUENCY CHARACTERISTICS



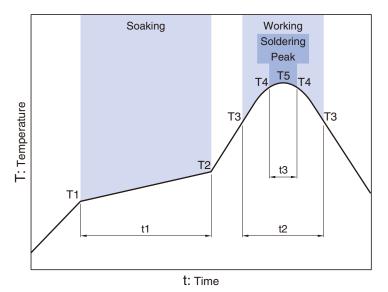
Isolation 0 10 20 Isolation(dB) 30 40 50 1000 3000 4000 5000 6000 7000 8000 2000 Frequency(MHz)

• All specifications are subject to change without notice.

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• Before using these products, be sure to request the delivery specifications.
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## DPX165850DT-8033B1

#### RECOMMENDED REFLOW PROFILE



Soaking			Working		Soldering Peak	Soldering Peak	
Temp.		Time	Temp.	Time	Temp.	Time	Temp.
T1	T2	t1	Т3	t2	T4	t3	T5
150°C	180°C	60 to 120s	230°C	more than 30s	247 to 253°C	within 10s	260°C max.

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

## **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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