Jul. 2016 Ver.6.0N
TDK Corporation

Multilayer Diplexer

For 2.4GHz W-LAN & Bluetooth / 5GHz W-LAN

DPX Series 1.6x0.8mm [EIA 0603] TYPE

P/N: **DPX165950DT-8060A1**

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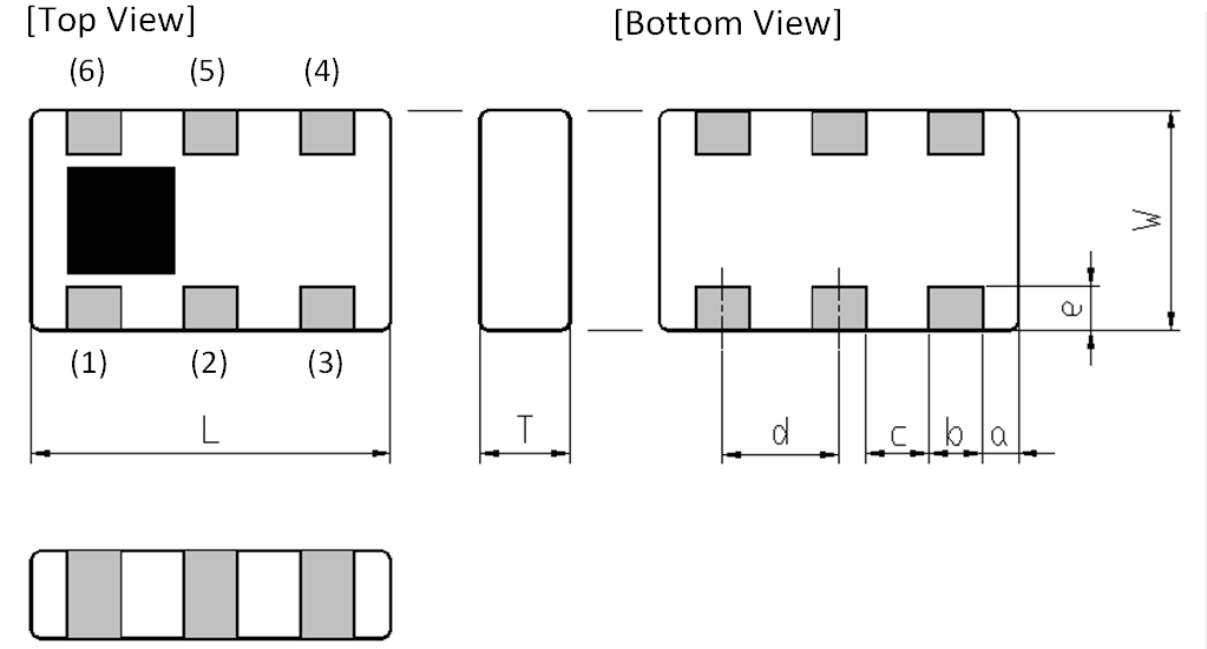
SHAPES AND DIMENSIONS



Dimensions (mm)

L	W	T	a	b	c	d	e
1.60 +/-0.15	0.80 +/-0.15	0.60 +/-0.10	0.10 +/-0.10	0.30 +/-0.10	0.25 +/-0.10	0.55 +/-0.10	0.25 +/-0.10

Terminal functions

(1)	GND
(2)	Common Port
(3)	GND

(4)	High-Band Port
(5)	GND
(6)	Low-Band Port

TEMPERATURE RANGE

Operating temperature	Storage temperature
–40 to +90 °C	–40 to +90 °C

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ELECTRICAL CHARACTERISTICS

(Measurement)

Low-Band

Parameter	Frequency (MHz)	TDK Spec		
		Min.	Typ.	Max.
Insertion Loss (dB)	2400 to 2496	-	0.51	0.65
Return Loss (dB)	2400 to 2496	10	15	-
Attenuation (dB)	4800 to 5000	32	43	-
	7200 to 7500	15	24	-

Ta = +25+/-5°C

High-Band

Parameter	Frequency (MHz)	TDK Spec		
		Min.	Typ.	Max.
Insertion Loss (dB)	5150 to 5950	-	0.90	1.25
Return Loss (dB)	5150 to 5950	10	15	-
Attenuation (dB)	70 to 2000	30	42	-
	2400 to 2690	30	35	-
	7250 to 7800	9	14	-
	10300 to 11700	28	33	-
	15000 to 18000	10	27	-

Ta = +25+/-5°C

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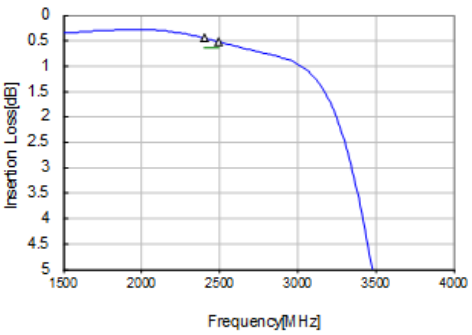
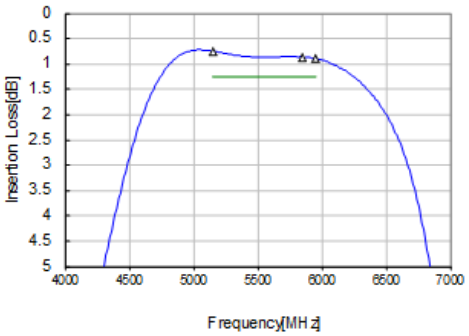
FREQUENCY CHARACTERISTICS

Insertion Loss (Low-Band)



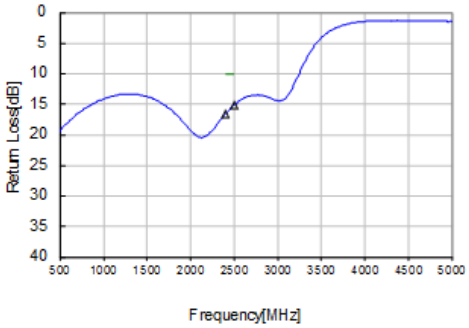
Insertion Loss		
2400 MHz	0.45	dB
2496 MHz	0.51	dB

Insertion Loss (High-Band)



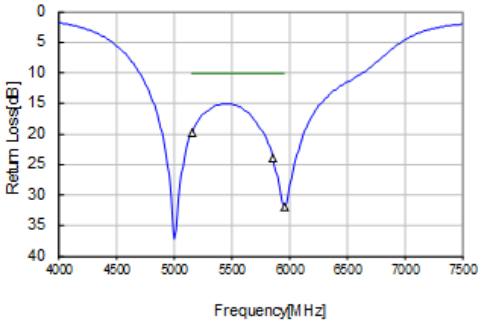
Insertion Loss		
5150 MHz	0.75	dB
5850 MHz	0.86	dB
5950 MHz	0.90	dB

Return Loss (Low-Band)



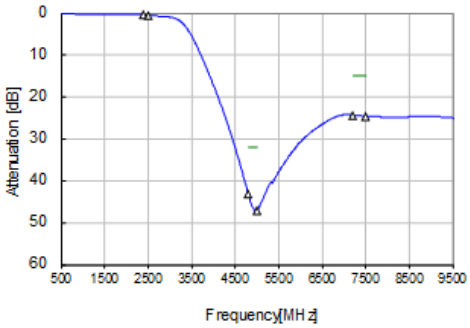
2400 MHz	16.58	dB
2496 MHz	15.19	dB

Return Loss (high-Band)



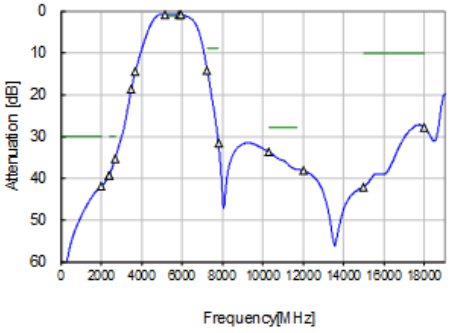
5150 MHz	19.71	dB
5850 MHz	23.93	dB
5950 MHz	31.88	dB

Attenuation (Low-Band)



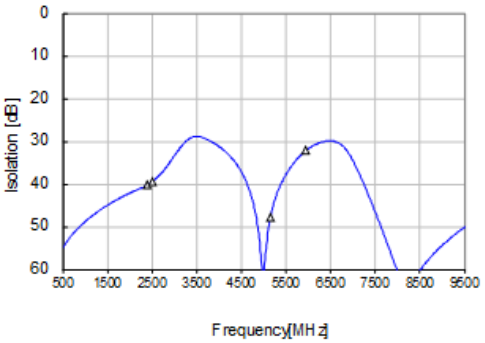
Attenuation		
4800 MHz	43.09	dB
5000 MHz	47.02	dB
7200 MHz	24.30	dB
7500 MHz	24.56	dB

Attenuation (High-Band)



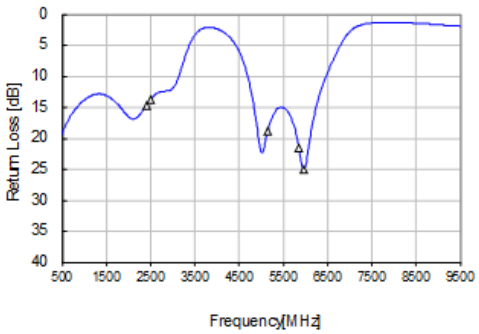
Attenuation		
70 MHz	69.62	dB
2000 MHz	41.85	dB
2400 MHz	39.26	dB
2690 MHz	35.25	dB
3500 MHz	18.56	dB
3700 MHz	14.36	dB
7250 MHz	14.09	dB
7800 MHz	31.55	dB
10300 MHz	33.69	dB
12000 MHz	38.16	dB
15000 MHz	41.96	dB
18000 MHz	27.86	dB

Isolation



2400 MHz	40.1	dB
2496 MHz	39.5	dB
5150 MHz	47.7	dB
5950 MHz	32.1	dB

Common port Return Loss



2400 MHz	14.69	dB
2496 MHz	13.80	dB

5150 MHz	18.75	dB
5850 MHz	21.44	dB
5950 MHz	25.05	dB

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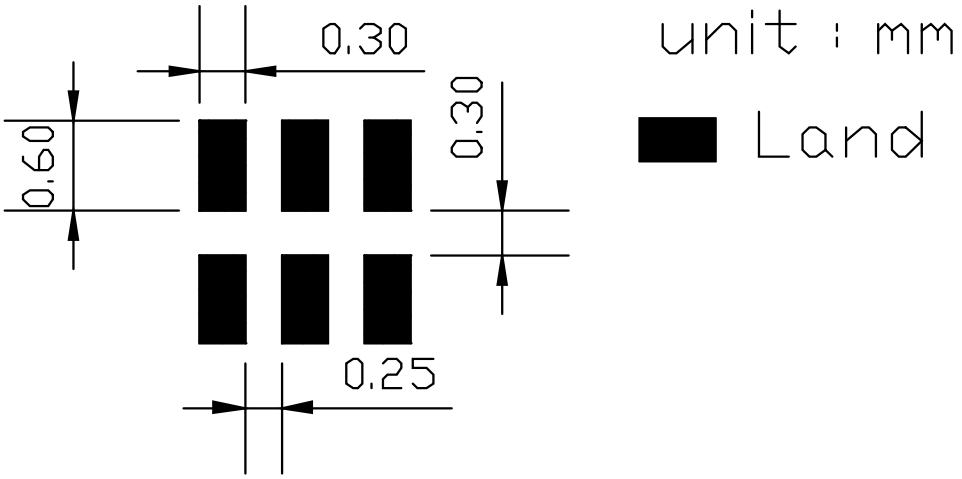
RECOMMENDED LAND PATTERN



ENVIRONMENT INFORMATION

RoHS Statement
RoHS Compliance

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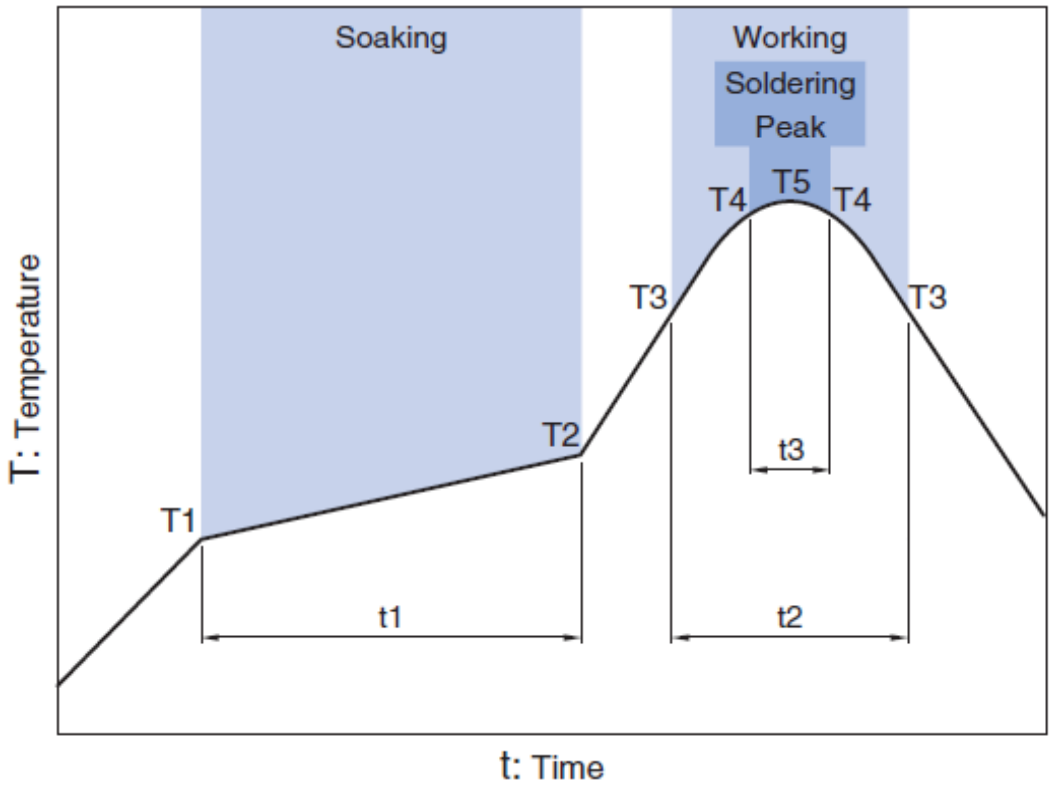
■ RECOMMENDED REFLOW PROFILE

Pb free solder



Soaking			Working		Soldering		Peak
Temp.		Time	Temp.	Time	Temp.	Time	Temp.
T1	T2	t1	T3	t2	T4	t3	T5
150°C	180°C	60 to 120sec	230°C	more than 30sec	247 to 253°C	within 10sec	260°C Max.

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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 specification sheet 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 specification sheet.

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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