

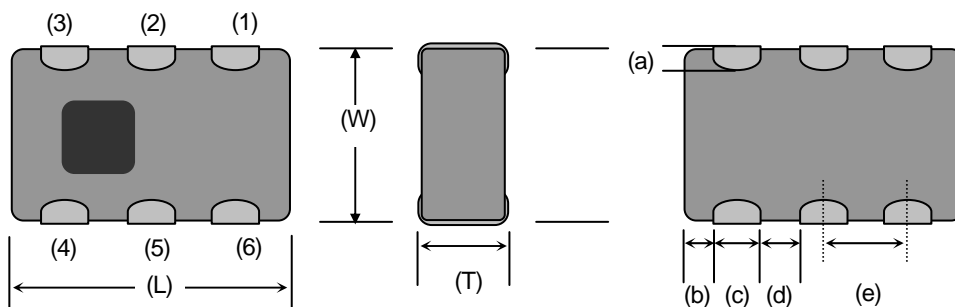
## 2012 TYPE MULTILAYER DIPLEXER

P/N: **DPX205850DT-9038A1-H**

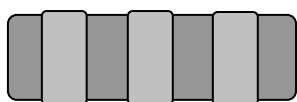
### MECHANICAL DIMENSIONS

[Top View]

[Bottom View]



[Side View]



PIN Configuration

(1)	(2)	(3)	(4)	(5)	(6)
GND	Common	GND	High-Band	GND	Low-Band

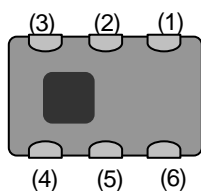
Dimension (mm)

(L)	(W)	(T)	(a)	(b)	(c)	(d)	(e)
2.00 +/-0.20	1.25 +/-0.20	0.80 max.	0.25 +/-0.20	0.20 +/-0.20	0.30 +/-0.10	0.35 +/-0.10	0.65 +/-0.10

Note:

These samples are marked with trial sample identification.

In mass production, this sample marking will be changed to show in the TDK full specification.



### TEMPERATURE RANGE

Storage Temperature	-40 ~ +85 °C
Operating Temperature	-40 ~ +85 °C

## ELECTRICAL CHARACTERISTICS (Ta= +25 ± 5 °C)

### Low-Band

Parameter	Freq. (MHz)	Specification	Typ.	Unit
Insertion Loss at 25degC	2400-2500	2.2 max.	2.00	dB
Insertion Loss at -40degC to +85degC	2400-2500	2.4 max.	-	dB
Attenuation	824-915	30 min.	38	dB
	1545-1610	30 min.	34	dB
	1710-1990	30 min.	35	dB
	2110-2170	25 min.	30	dB
	3200-3600	15 min.	17	dB
	3700-3900	12 min.	25	dB
	4800-5000	28 min.	36	dB
	7200-7500	25 min.	29	dB

### High-Band

Parameter	Freq. (MHz)	Specification	Typ.	Unit
Insertion Loss at 25degC	5150-5850	1.2 max.	0.77	dB
Insertion Loss at -40degC to +85degC	5150-5850	1.5 max.	-	dB
Attenuation	1545-1610	20 min.	38	dB
	1710-1990	20 min.	29	dB
	2110-2170	20 min.	25	dB
	2400-2500	23 min.	26	dB
	3450-3900	8 min.	10	dB
	7250-7800	8 min.	26	dB
	9800-11700	20 min.	31	dB

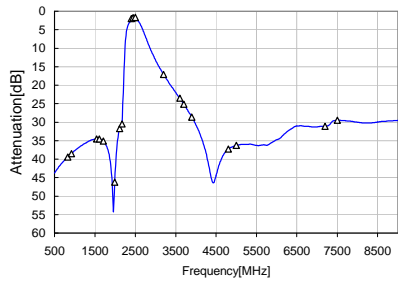
### Common

Parameter	Freq. (MHz)	Specification	Typ.	Unit
VSWR	2400-2500	2.0 max	1.34	-
	5150-5850	2.0 max	1.55	-

We recommend to terminate for all port with 50ohm at all times.

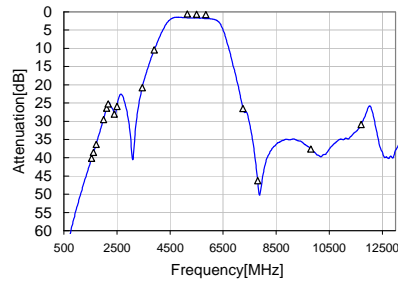
# FREQUENCY CHARACTERISTICS (Sample Data)

**Low-Band Port**



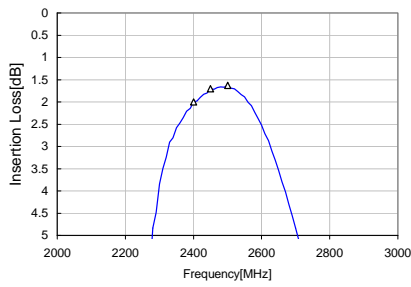
Attenuation	
824 MHz	39.44 dB
915 MHz	38.53 dB
1545 MHz	34.49 dB
1610 MHz	34.53 dB
1710 MHz	35.13 dB
1990 MHz	46.22 dB
2110 MHz	31.67 dB
2170 MHz	30.42 dB
3200 MHz	17.07 dB
3600 MHz	23.52 dB
3700 MHz	25.16 dB
3900 MHz	28.62 dB
4800 MHz	37.26 dB
5000 MHz	36.28 dB
7200 MHz	31.11 dB
7500 MHz	29.45 dB

**High-Band Port**



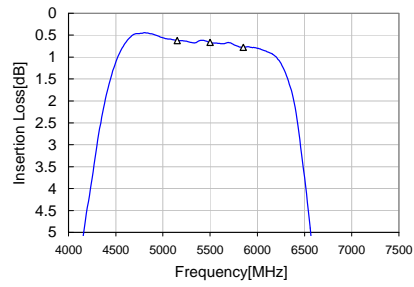
Attenuation	
1545 MHz	40.17 dB
1610 MHz	38.56 dB
1710 MHz	36.39 dB
1990 MHz	29.58 dB
2110 MHz	26.40 dB
2170 MHz	25.23 dB
2400 MHz	28.02 dB
2500 MHz	25.91 dB
3450 MHz	20.82 dB
3900 MHz	10.42 dB
7250 MHz	26.54 dB
7800 MHz	46.28 dB
9800 MHz	37.58 dB
11700 MHz	30.88 dB

**Low-Band Port**



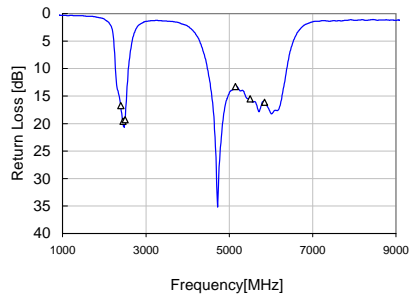
Insertion Loss	
2400 MHz	2.00 dB
2450 MHz	1.70 dB
2500 MHz	1.63 dB

**High-Band Port**



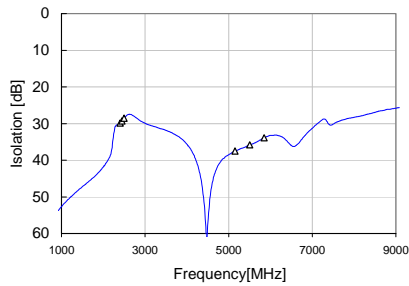
Insertion Loss	
5150 MHz	0.62 dB
5500 MHz	0.67 dB
5850 MHz	0.77 dB

**Common Port Return Loss**



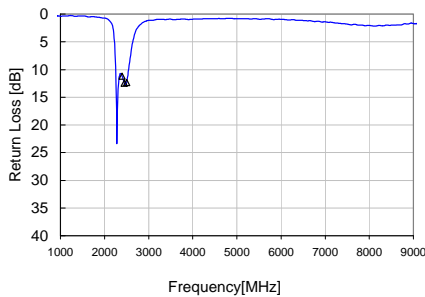
2400 MHz	16.73
2450 MHz	19.56
2500 MHz	19.29
5150 MHz	13.29
5500 MHz	15.53
5850 MHz	16.14

**Isolation**



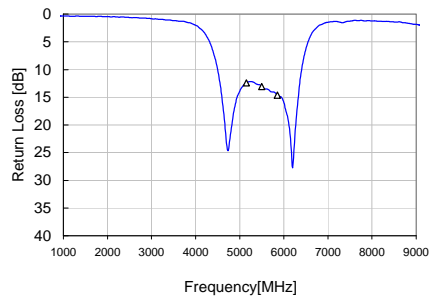
2400 MHz	29.8 dB
2450 MHz	29.2 dB
2500 MHz	28.5 dB
5150 MHz	37.5 dB
5500 MHz	35.8 dB
5850 MHz	33.9 dB

**Low-Band Port Return Loss**



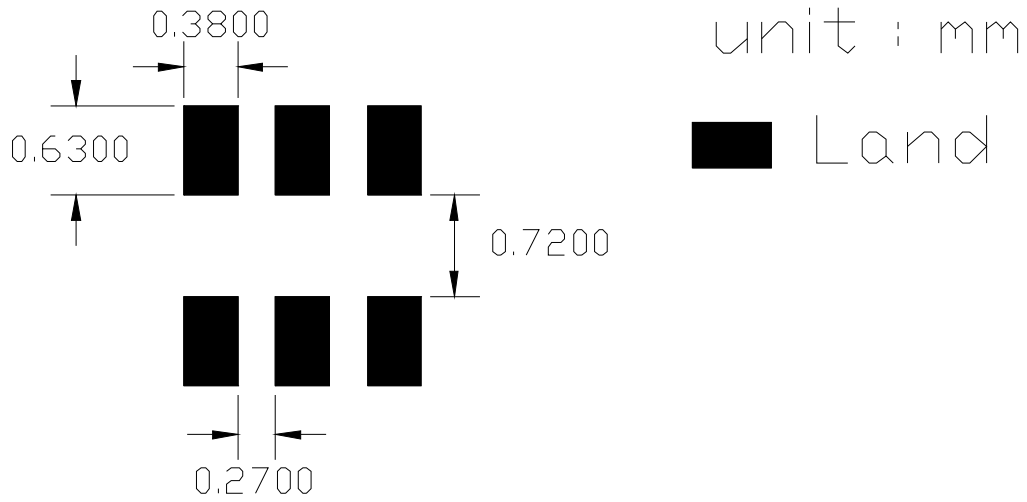
2400 MHz	11.22
2450 MHz	12.49
2500 MHz	12.37

**High-Port Return Loss**



5150 MHz	12.41
5500 MHz	13.06
5850 MHz	14.63

## RECOMMENDED LAND PATTERN



**Note:**

Line width be designed to match 50 Ohm characteristic impedance, depending on PCB material and thickness.

# Mouser Electronics

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TDK:

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