

DP 3225 Series

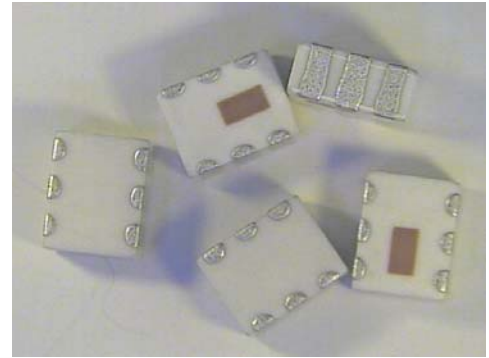
Multilayer Chip Diplexers

Features

- ❖ Monolithic structure including one low-pass and one and-pass filters with loss pole at adjacent passband.

Applications

- ❖ For wireless applications.



Specifications

Part Number	Passband (MHz)	Insertion Loss (dB)	Return Loss (dB)	Ripple (dB)	Attenuation (dB)
DP3225-A1320AA_	400-900	2.0 max.	10 min.	0.5 max. Over any 24MHz 0.75 max. Over any 36MHz	30 min. @ 1100~1600MHz
	1800-2300	2.6 max.	10 min.	0.5 max. Over any 24MHz 0.75 max. Over any 36MHz	
	1100-1600	2.9 max.	10 min.	0.5 max. Over any 24MHz 0.75 max. Over any 36MHz	30 min. @ 400~900MHz 30 min. @ 1800~2300MHz

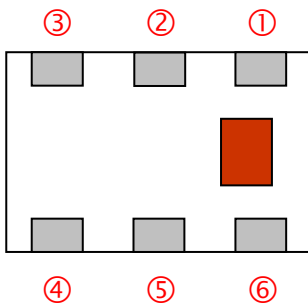
Operating Temperature Range : -40 ~ +85 °C
 Storage Temperature Range : -40 ~ +85 °C
 Storage Period : 12 months max.
 Power Capacity : 500mW max.

Part Number

DP 3225 - A 1320 AA □ /LF
 ① ② ③ ④ ⑤ ⑥ ⑦

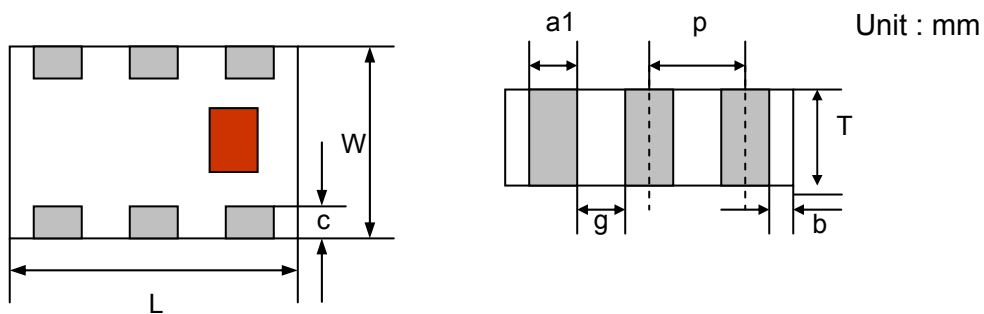
① Type	DP : Diplexer	② Dimensions (L × W)	3.2 × 2.5 mm
③ Material Code	A	④ Frequency Range	1320 = 1300MHz /2000MHz
⑤ Specification Code	AA	⑥ Packaging	T: Tape & Reel B: Bulk
⑦ Soldering	=lead-containing /LF=lead-free		

Terminal Configuration

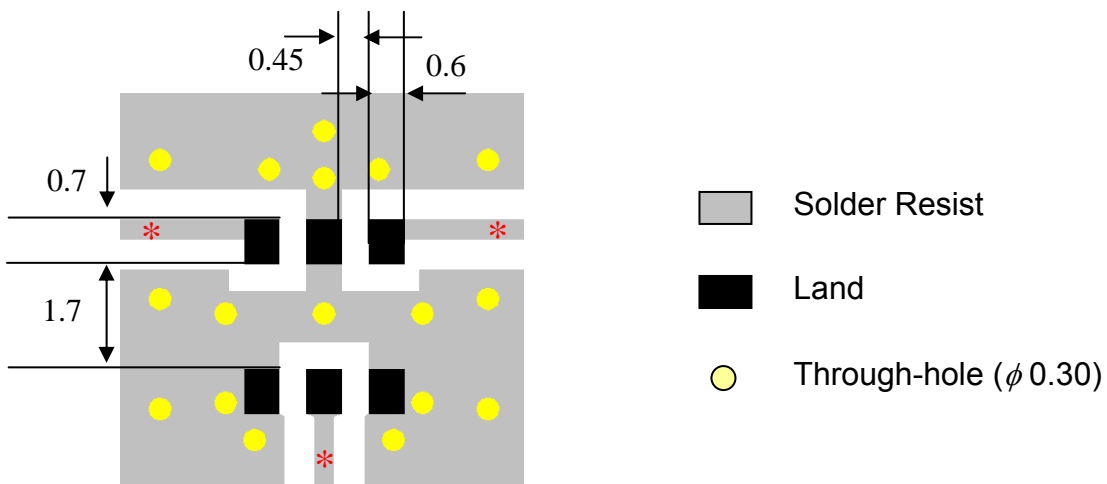


No.	Terminal Name	No.	Terminal Name
①	GND	④	BPF. Port
②	Common Port	⑤	GND
③	GND	⑥	BEF. Port

Dimensions and Recommended PC Board Pattern

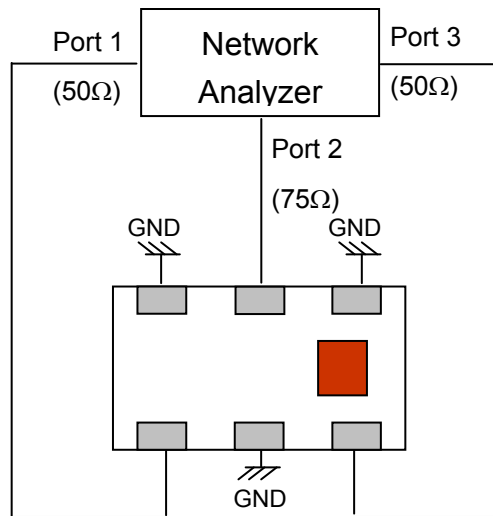


Mark	L	W	T	a1	b	c	g	p
Dimensions	3.2 ± 0.2	2.5 ± 0.2	1.5 ± 0.15	0.55 ± 0.15	0.1min.	0.4+0.1 /-0.2	0.45 ± 0.15	1.0 ± 0.2



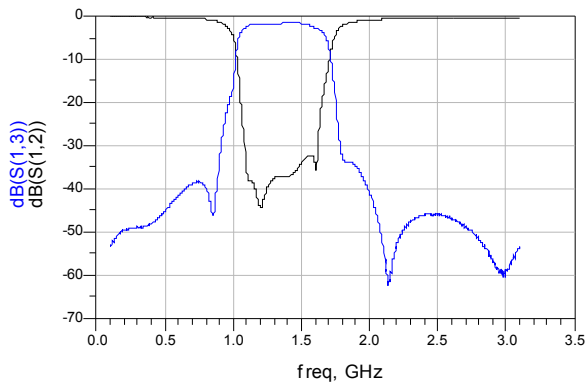
* Line width should be designed to match 50 Ω characteristic impedance, depending on PCB material and thickness.

Measuring Diagram

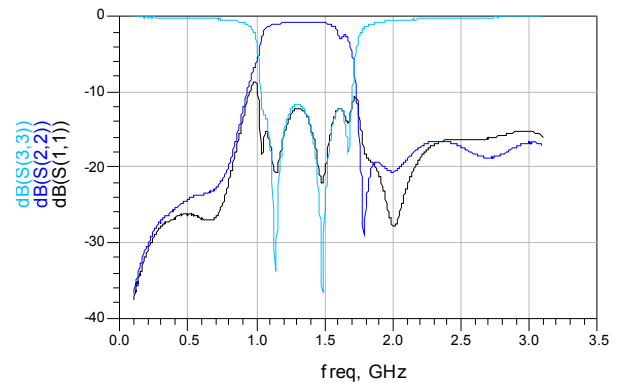


Typical Electrical Characteristics (T=25°C)

Attenuation



Return Loss

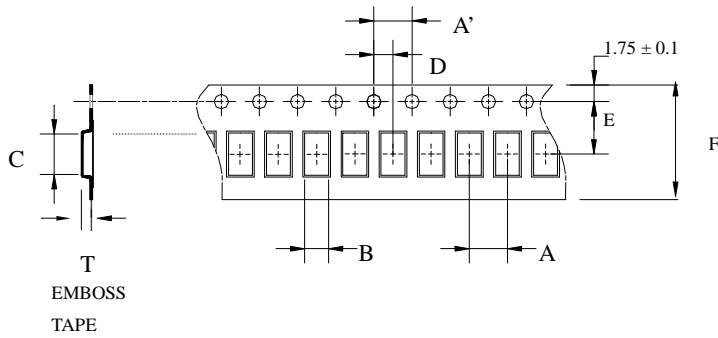


Notes

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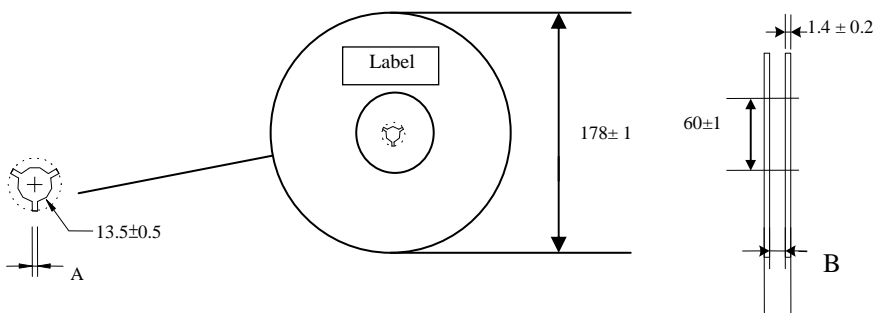
Taping Specifications

❖Tape Dimensions (Unit: mm) & Quantity



Type	A	A'	B	C	D	E	F	T	Quantity/reel	Tape material
3225	4.0±	4.0±	2.75±	3.45±	2.0±	3.5±	8.0±	1.70±	2,000pcs	Plastic (Embossed)
	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.10		

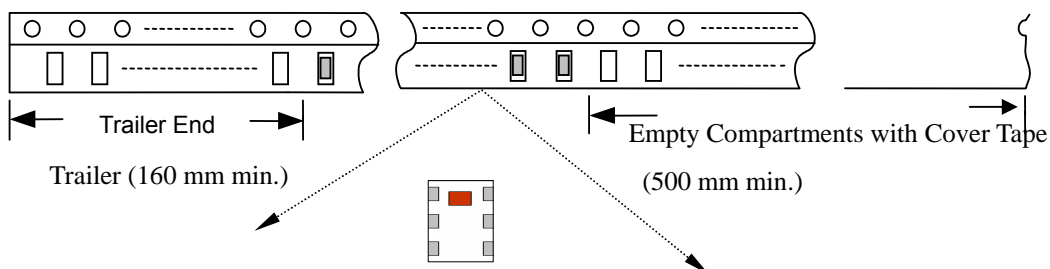
❖Reel Dimensions (Unit: mm)



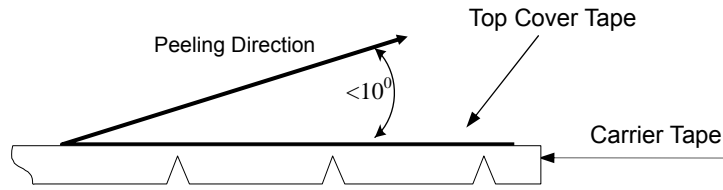
Label: Customer's Name,
ACX P/N, Q'ty, Date,
ACX Corp.

Type	A	B
3225	2.3±0.5	9.0±0.3

❖Leader and Trailer Tape



❖ **Peel-off Force**



Peel-off force should be in the range of 0.1 – 0.6 N at a peel-off speed of 300 ± 10 mm/min .

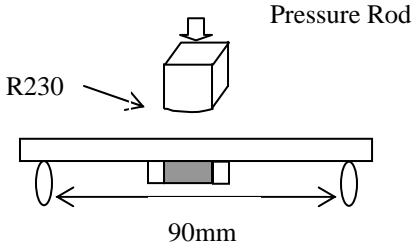
❖ **Storage Conditions**

- (1) Temperature: 5 ~35°C , relative humidity (RH): 45~75%.
- (2) Non-corrosive environment.

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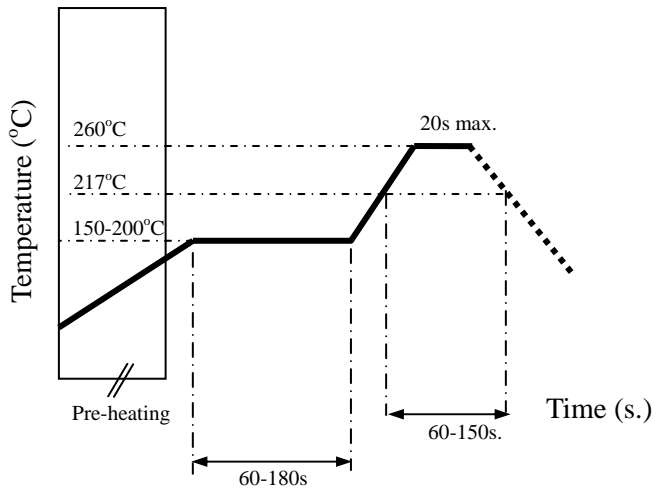
Mechanical & Environmental Characteristics

Item	Requirements	Procedure
Solderability	<ol style="list-style-type: none"> No apparent damage. More than 95% of the terminal electrode shall be covered with new solder. 	<ol style="list-style-type: none"> Preheat: $120 \pm 5^{\circ}\text{C}$ Solder: $245 \pm 5^{\circ}\text{C}$ for 5 ± 1 sec
Soldering strength (Termination Adhesion)	<ol style="list-style-type: none"> 1kg minimum 	<ol style="list-style-type: none"> Solder specimen onto test jig. Apply push force at 0.5mm/s until electrode pads are peeled off or ceramic are broken. Pushing force is applied to longitude direction.
Deflection (Substrate Bending)	<ol style="list-style-type: none"> No apparent damage 	<ol style="list-style-type: none"> Solder specimen onto test jig (FR4, 0.8mm) using the recommend soldering profile. Apply a bending force of 1 mm deflection. 
Heat/Humidity Resistance	<ol style="list-style-type: none"> No apparent damage Fulfill the electrical specification after test 	<ol style="list-style-type: none"> Temperature: $85 \pm 2^{\circ}\text{C}$ Humidity: 90% ~ 95% RH Duration: 1000 ± 48hrs Recovery: 1-2hrs
Thermal shock (Temperature Cycle)	<ol style="list-style-type: none"> No apparent damage Fulfill the electrical specification after test 	<ol style="list-style-type: none"> One cycle/step 1 : $125 \pm 5^{\circ}\text{C}$ for 30 min step 2 : $-40 \pm 5^{\circ}\text{C}$ for 30 min No of cycles : 100 Recovery: 1-2 hrs
Low Temperature Resistance	<ol style="list-style-type: none"> No apparent damage Fulfill the electrical specification after test 	<ol style="list-style-type: none"> Temperature: $-40 \pm 5^{\circ}\text{C}$ Duration: 500 ± 24hrs Recovery: 1-2hrs

Soldering Conditions

❖ Typical Soldering Profile for Lead-free Process

Reflow Soldering :



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