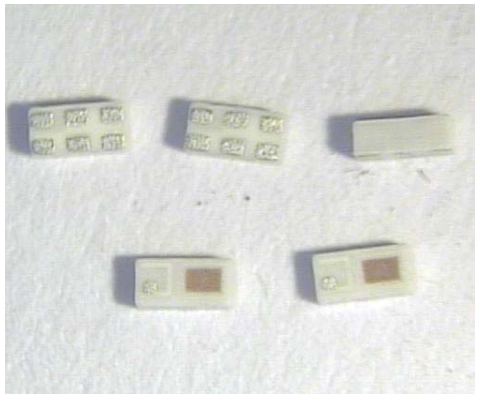
ACX
Advanced Ceramic X

DP 1608 Series

Multilayer Chip Diplexers



Features

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

Applications

- ❖ Dual-band / dual-mode 1.8GHz/2.6GHz

Specifications

Part Number	Passband (MHz)	Insertion Loss (dB)	Passband VSWR	Attenuation (dB)	Isolation (dB)
DP1608 -A1826NA _	1710~1880	0.9 max.	2 max.	15 min. @ 2500 ~ 2690 MHz	15 min. @ 2500 ~ 2690 MHz
	2500~2690	0.9 max.	2 max.	15 min. @ 1710 ~ 1880 MHz	15 min. @ 1710 ~ 1880 MHz

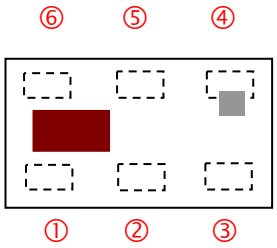
Q'ty/Reel (pcs) : 4000
Operating Temperature Range : -40 ~ +85 °C
Storage Temperature Range : -40 ~ +85 °C
Storage Period : 12 months max.
Power Capacity : 3W max.

Part Number

DP	1608	-	A	1826	NA	□	/LF
①	②		③	④	⑤	⑥	⑦

① Type	DP : Diplexer	② Dimensions (L × W)	1.6 × 0.8 mm
③ Material Code	A	④ Frequency Range	1826=1800MHz /2600MHz
⑤ Specification Code	NA	⑥ Packaging	T: Tape & Reel B: Bulk
⑦ Soldering	/LF=lead-free		

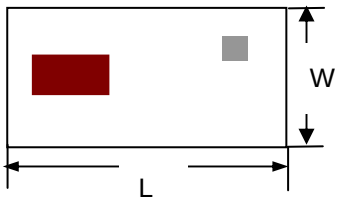
Terminal Configuration



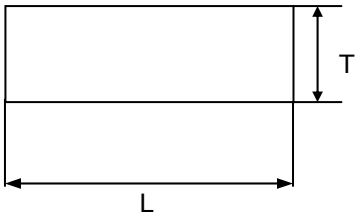
No.	Terminal Name	No.	Terminal Name
①	GND	④	Higher Freq. Port
②	Common Port	⑤	GND
③	GND	⑥	Lower Freq. Port

Dimensions

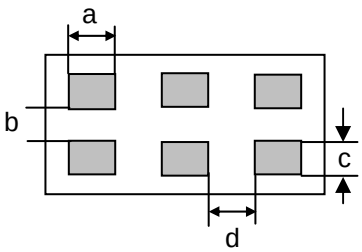
Unit : mm



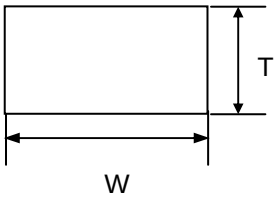
Top View



Side View

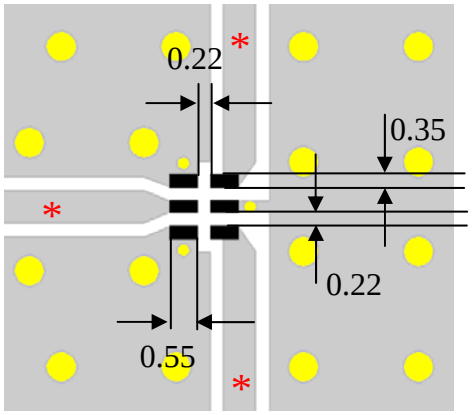


Bottom View



Side View

Mark	L	W	T	a	b	c	d
Dimensions	1.6±0.1	0.8±0.1	0.6±0.1	0.35 ±0.05	0.22 ±0.05	0.225 ±0.05	0.22 ±0.05



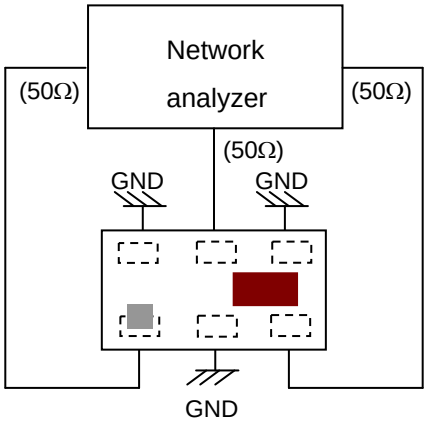
Solder Resist

Land

Through-hole (ϕ 0.35)

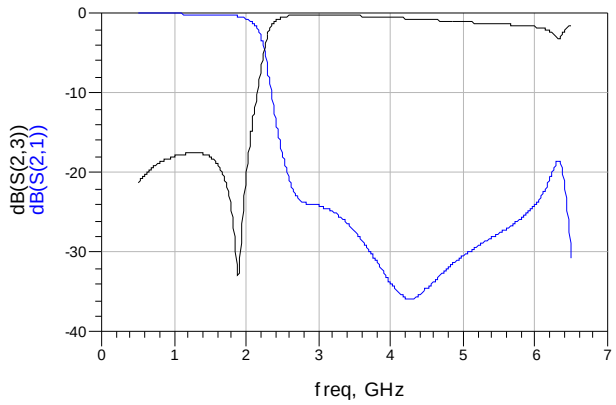
* Line width should be designed to match 50 Ω characteristic impedance, depending on PCB material and thickness.

Measuring Diagram

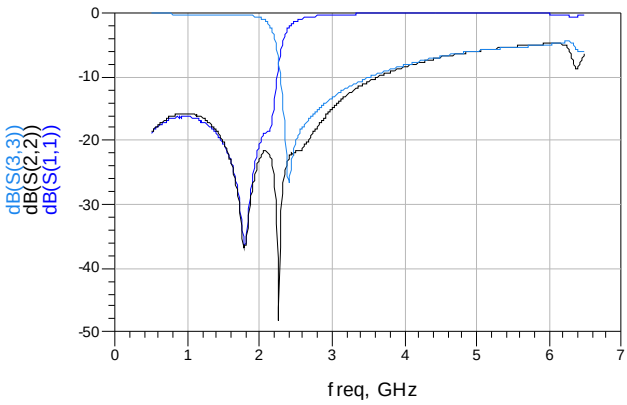


Typical Electrical Characteristics (T=25°C)

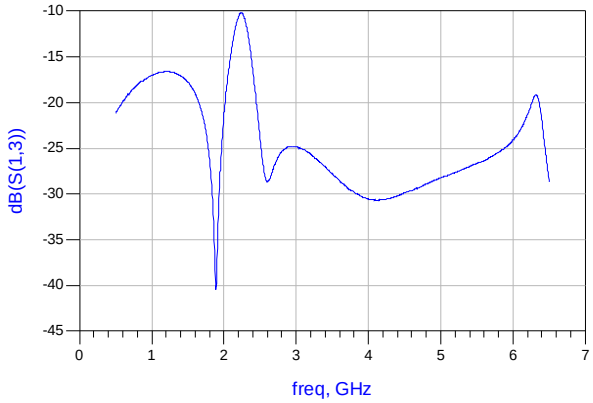
Attenuation



Return Loss



Isolation

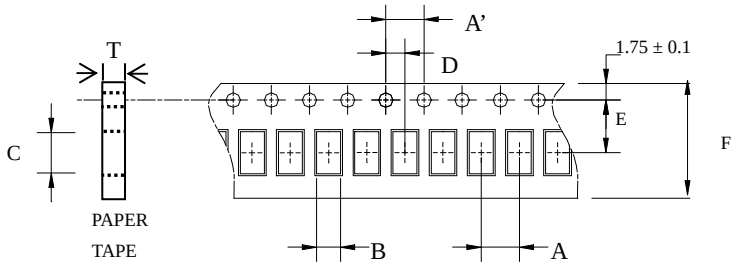


Notes

❖The contents of this data sheet are subject to change without notice. Please confirm the specifications and delivery conditions when placing your order.

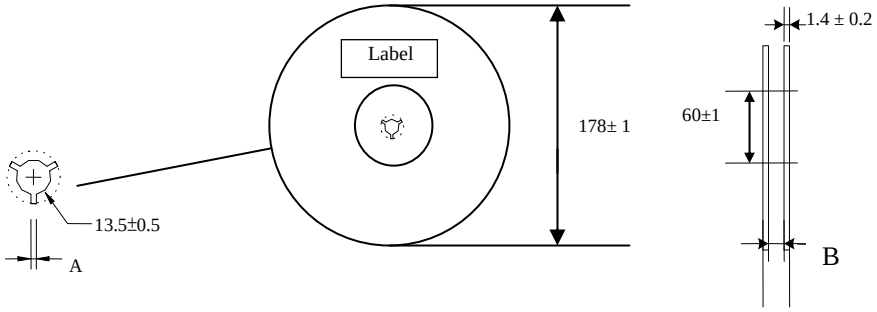
Taping Specifications

❖Tape Dimensions (Unit: mm) & Quantity



Type	A	A'	B	C	D	E	F	T	Quantity/reel	Tape material
1608	4.0± 0.1	4.0± 0.1	1.10± 0.1	1.92± 0.1	2.0± 0.1	3.5± 0.1	8.0± 0.1	0.75± 0.05	4,000pcs	Paper

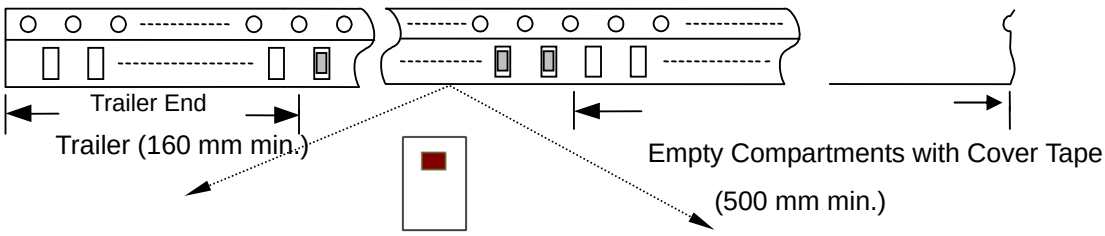
❖Reel Dimensions (Unit: mm)



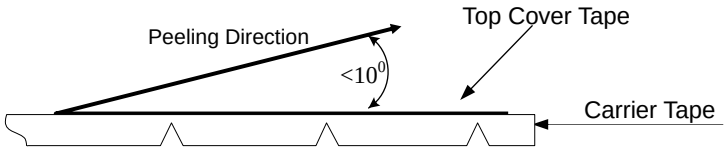
Label: Customer's Name,
ACX P/N, Q'ty, Date,
ACX Corp.

Type	A	B
1608	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℃, relative humidity (RH): 45~75%.
(2) Non-corrosive environment.

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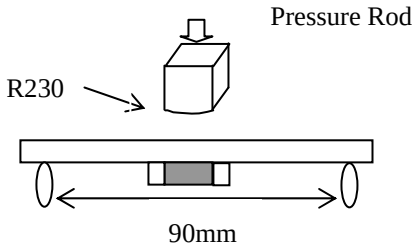
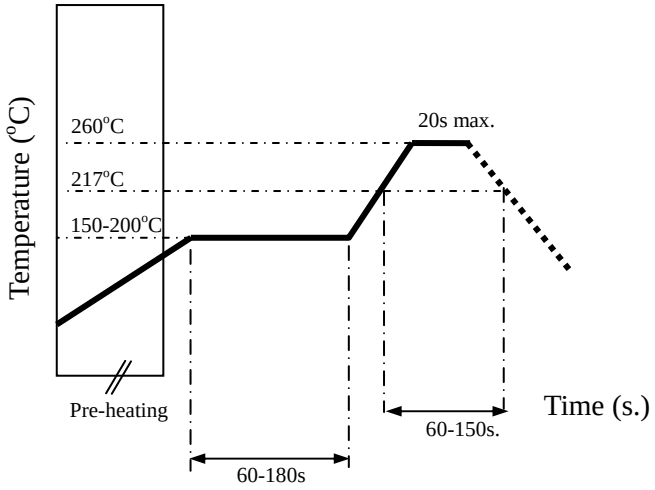
Mechanical & Environmental Characteristics

Item	Requirements	Procedure
Solderability	1. No apparent damage 2. More than 95% of the terminal electrode shall be covered with new solder	1. Preheat: 120± 5 °C 2. Solder: 245± 5°C for 5± 1 sec
Soldering strength (Termination Adhesion)	1. 1kg minimum	1. Solder specimen onto test jig. 2. 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)	1. No apparent damage	1. Solder specimen onto test jig (FR4, 0.8mm) using the recommend soldering profile. 2. Apply a bending force of 2mm deflection. 
Heat/Humidity Resistance	1. No apparent damage 2. Fulfill the electrical specification after test	1. Temperature: 85± 2°C 2. Humidity: 90% ~ 95% RH 3. Duration: 1000±48hrs 4. Recovery: 1-2hrs
Thermal shock (Temperature Cycle)	1. No apparent damage 2. Fulfill the electrical specification after test	1. One cycle/step 1：125 ± 5°C for 30 min step 2：- 40 ± 5°C for 30 min 2. No of cycles：100 3. Recovery:1-2 hrs
Low Temperature Resistance	1. No apparent damage 2. Fulfill the electrical specification after test	1. Temperature: -40°± 5 °C 2. Duration: 500 ±24hrs 3. Recovery: 1-2hrs

Soldering Conditions

❖**Typical Soldering Profile for Lead-free Process**

Reflow Soldering :



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