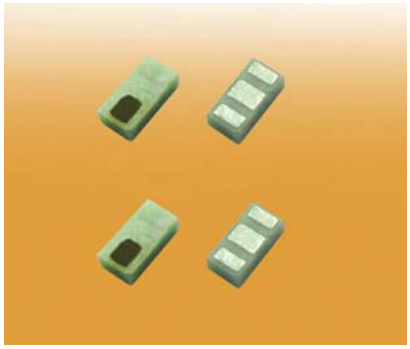
ACX
Advanced Ceramic X

BF 1608 Series

Multilayer Chip Band-Pass Filters



Features

❖ Ultra small SMD type with low loss at pass-band and high attenuation at stop-band.

❖ RoHS compliant

Applications

❖Mobile communication systems.

Specifications

Part Number	Frequency Range (MHz)	Insertion Loss @ BW (dB)	Return Loss @ BW (dB)	Frequency (MHz)	Attenuation (dB)
BF1608-N5R4NAG_	4900~5950	1.0 max.	10 min.	30 ~ 2700	38 min.
				3453 ~ 3547	16 min.
				3667 ~ 3883	33 min.
				6900 ~ 7093	9 min.
				7333 ~ 7750	20 min.
				10600 ~ 11650	38 min.
				15540 ~ 17760	18 min.

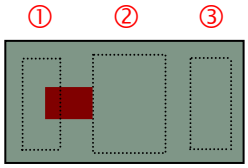
Q'ty/Reel (pcs) : 4,000
Operating Temperature Range : -40 ~ +85 °C
Storage Temperature Range : -40 ~ +85 °C
Storage Period : 12 months max.
Power Capacity : 3W max.

Part Number

BF	1608	-	N	5R4	NAG	□	/LF
①	②		③	④	⑤	⑥	⑦

① Type	BF : Band-Pass Filter	② Dimensions (L × W)	1.6 × 0.8 mm
③ Material Code	N	④ Frequency Range	5R4=5400MHz
⑤ Specification Code	NAG	⑥ Packaging	T: Tape & Reel B: Bulk
⑦ Soldering	/LF=lead-free		

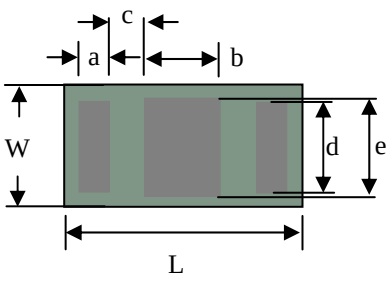
Terminal Configuration



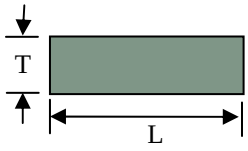
No.	Terminal Name	No.	Terminal Name
①	IN	③	OUT
②	GND		

Dimensions and Recommended PC Board Pattern

Unit: mm

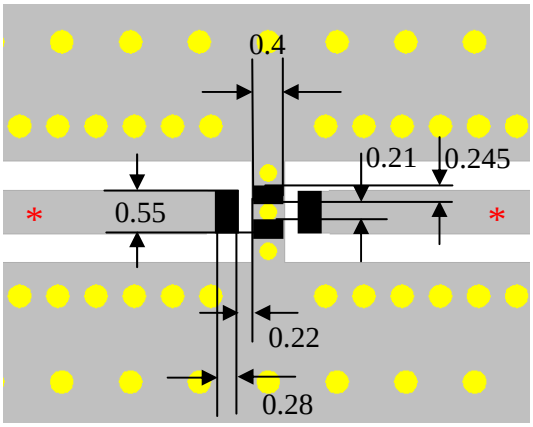


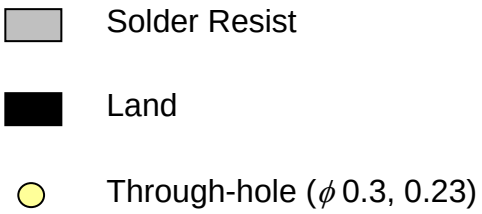
< Bottom View>



< Side View>

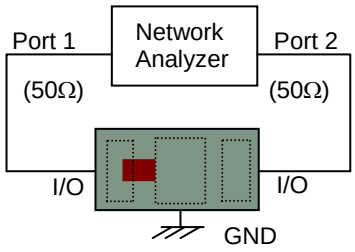
Mark	L	W	T	a	b	c	d	e
Dimensions	1.6 ± 0.15	0.8 ± 0.15	0.6 max.	0.25 ± 0.1	0.4 ± 0.1	0.23 ± 0.05	0.55 ± 0.10	0.60 ± 0.10



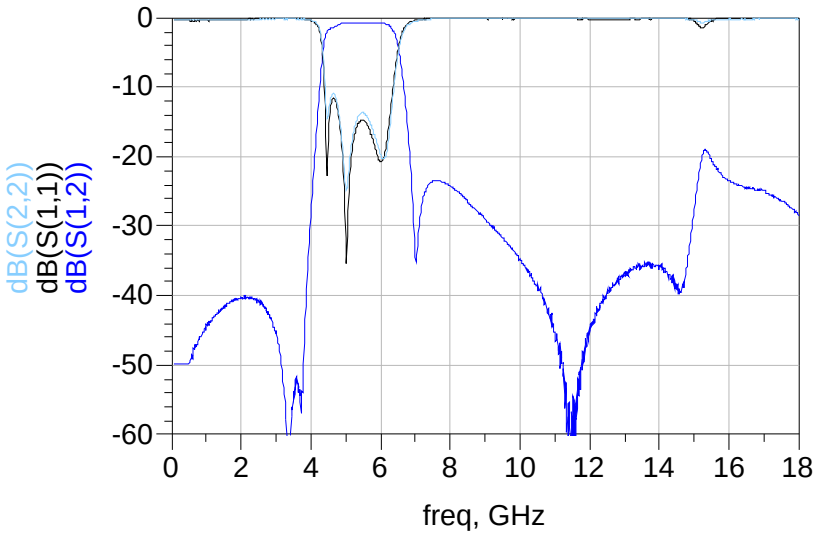


* Line width should be designed to match 50 Ω characteristic impedance, depending on PCB material and thickness.

Measuring Diagram



Electrical Characteristics (T=25oC)



Notes

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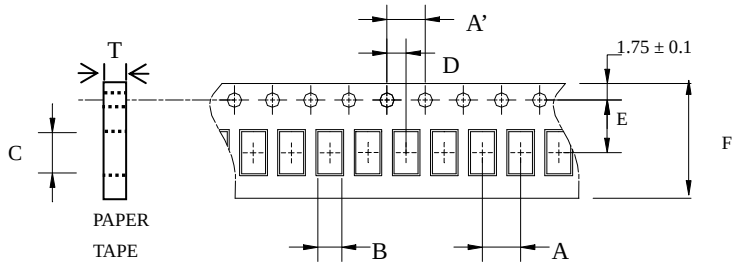
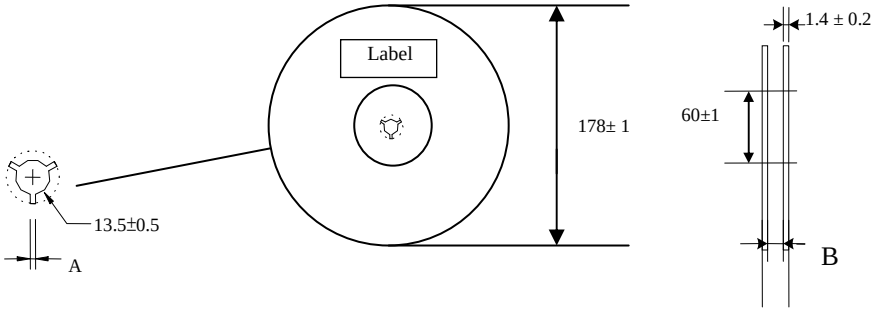
Taping Specifications

❖Tape Dimensions (Unit: mm) & Quantity



Type	A	A'	B	C	D	E	F	T	Quantity/reel	Tape material
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

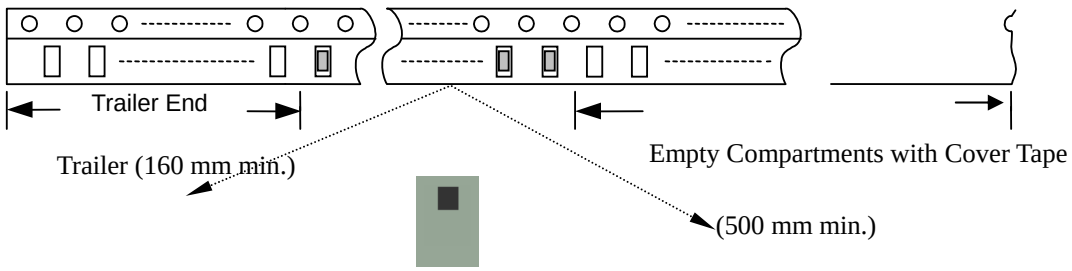
❖Reel Dimensions (Unit: mm)



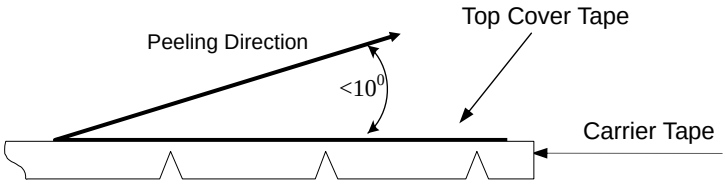
Label: Customer's Name,
ACX P/N, Q'ty, Date,
ACX Corp.

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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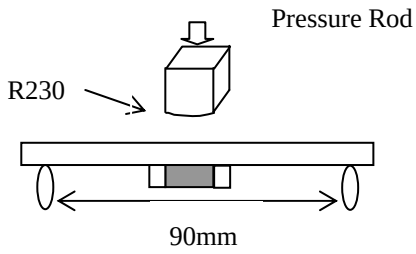
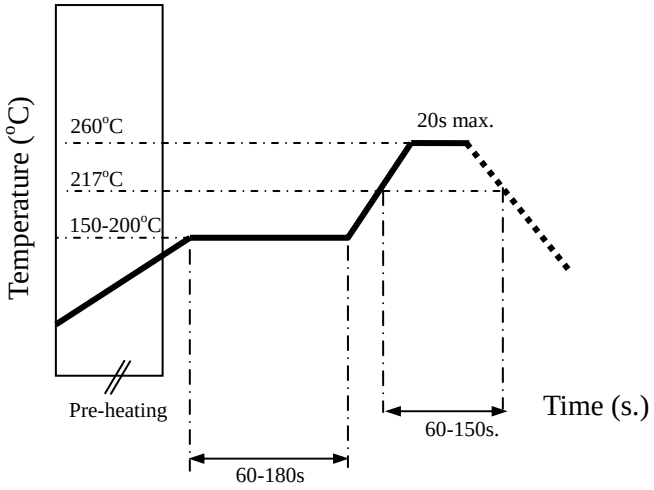
Mechanical & Environmental Characteristics

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. 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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