

BF1411 Series

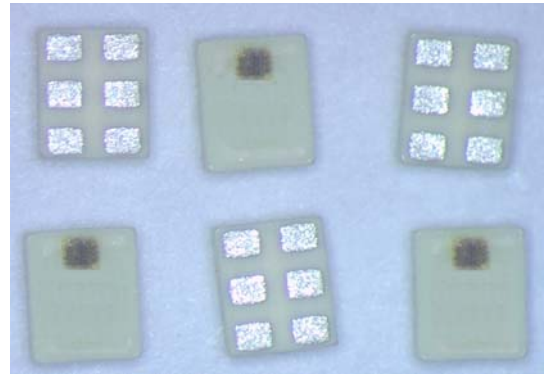
Multilayer Chip Band-Pass Filters

Features

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

Applications

- ❖ wireless communication systems.



Specifications

Part Number	Freq. Range (MHz)	Insertion Loss @BW(dB)	Return Loss @ BW(dB)	Frequency	Attenuation (dB)
BF1411-R6R1NGE_	5150 ~ 5250	1.3 max.	10 min.	700~ 2690 MHz	35 min.
				3300 ~ 3800 MHz	35 min.
	5250 ~ 7015	1.0 max.		3800 ~ 4200 MHz	35 min.
				8220~8500 MHz	14 min.
	7015 ~ 7125	1.3 max.		10300 ~ 14250 MHz	25 min.
				15450 ~ 21750 MHz	20 min.

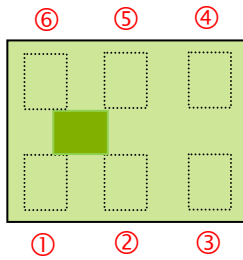
Q'ty/Reel (pcs) : 4000
 Operating Temperature Range : -40 ~ +105 °C
 Storage Temperature Range : -40 ~ +105 °C
 Storage Period : 12 months max.
 Power Capacity : 1W max.

Part Number

BF 1411 - R 6R1 NGE □ /LF
 ① ② ③ ④ ⑤ ⑥ ⑦

① Type	BF : Band-Pass Filter	② Dimensions (L x W)	1.4 x 1.1 mm
③ Material Code	R	④ Frequency Range	6R1=6100MHz
⑤ Specification Code	NGE	⑥ Packaging	T: Tape & Reel B: Bulk
⑦ Soldering	LF=lead-free		

Terminal Configuration

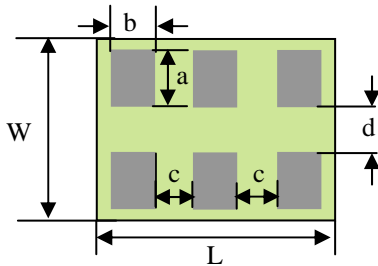


<Top View>

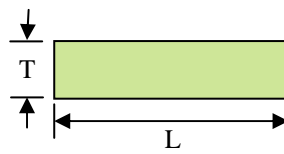
No.	Terminal Name	No.	Terminal Name
①	IN	④	OUT
②	GND	⑤	GND
③	GND	⑥	GND

Dimensions and Recommended PC Board Pattern

Unit : mm

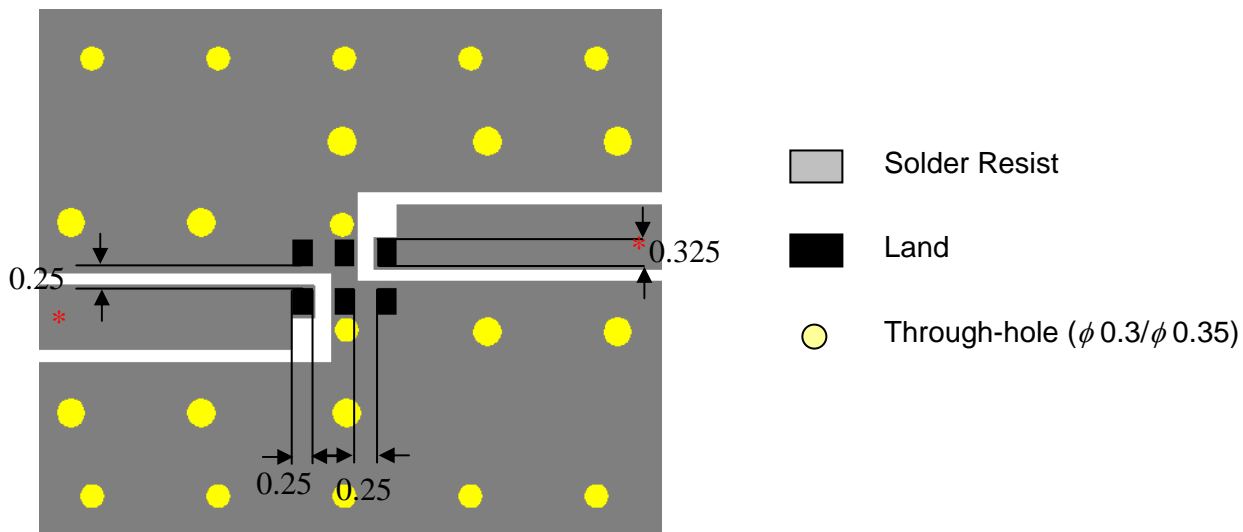


< Bottom View >



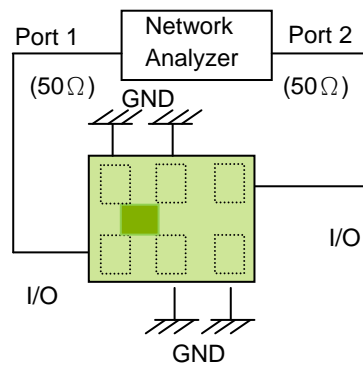
< Side View >

Mark	L	W	T	a	b	c	d
Dimensions	1.4 ± 0.15	1.1 ± 0.15	0.6 max	0.325 ± 0.1	0.25 ± 0.05	0.25 ± 0.05	0.25 ± 0.05

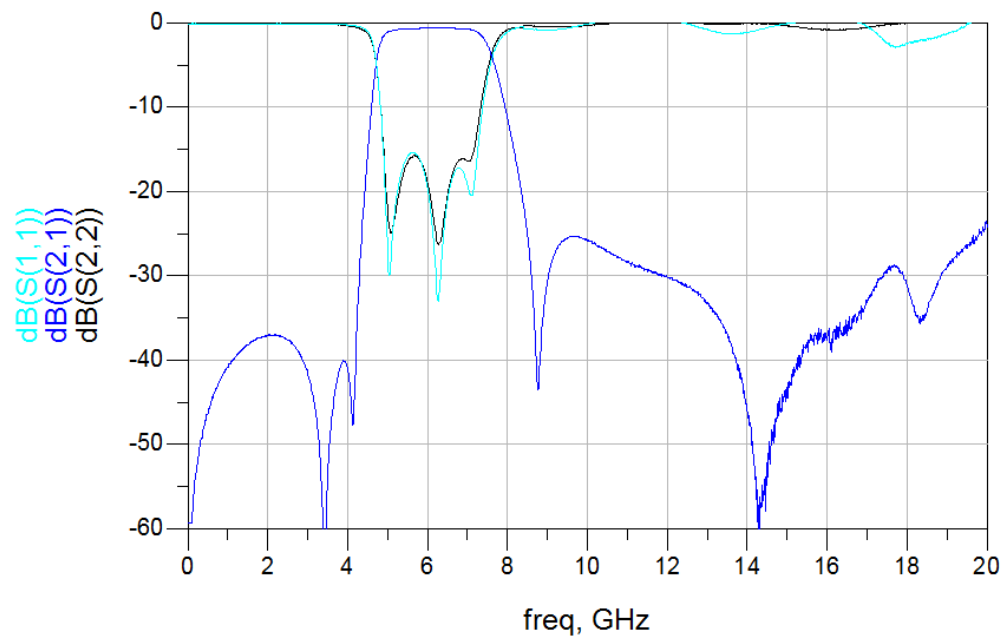


* Line width should be designed to match 50Ω characteristic impedance, depending on PCB material and thickness.

Measuring Diagram



Electrical Characteristics (T=25°C)

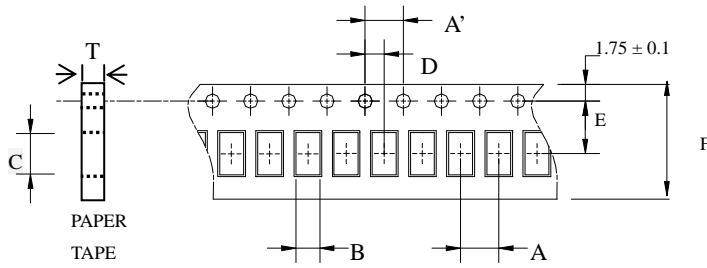


Notes

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

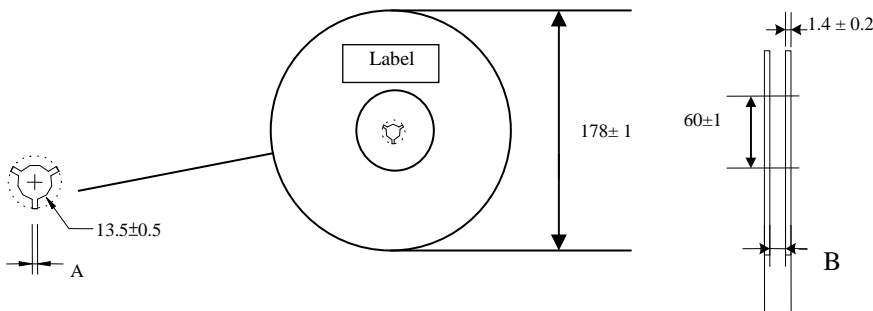
Taping Specifications

❖Tape Dimensions (Unit: mm) & Quantity



Type	A	A'	B	C	D	E	F	T	Quantity/reel	Tape material
1411	4.0±	4.0±	1.36±	1.65±	2.0±	3.5±	8.0±	0.75±	4,000pcs	Paper
	0.1	0.1	0.05	0.05	0.05	0.05	0.1	0.05		

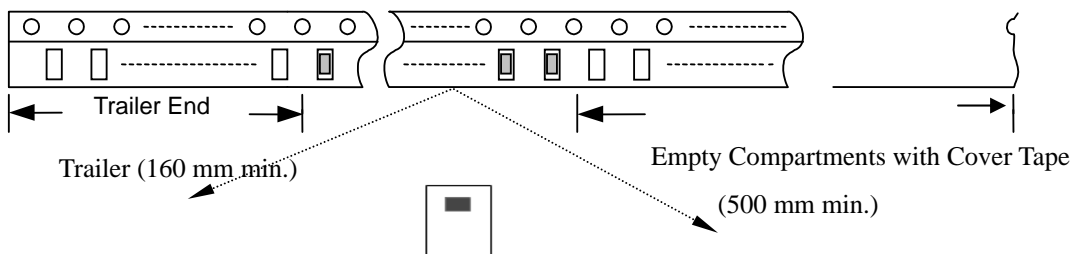
❖Reel Dimensions (Unit: mm)



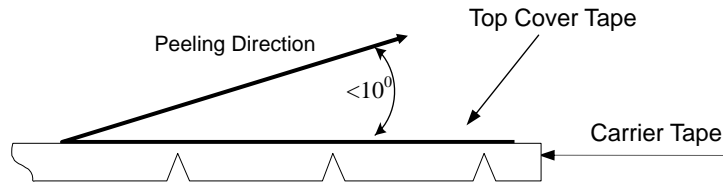
Label: Customer's Name,
ACX P/N, Q'ty, Date,
ACX Corp.

Type	A	B
1411	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 .

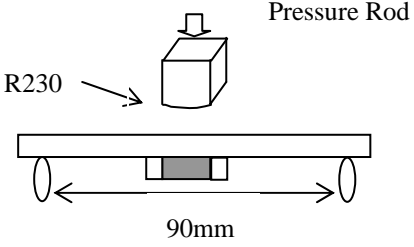
❖ **Storage Conditions**

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

Notes

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

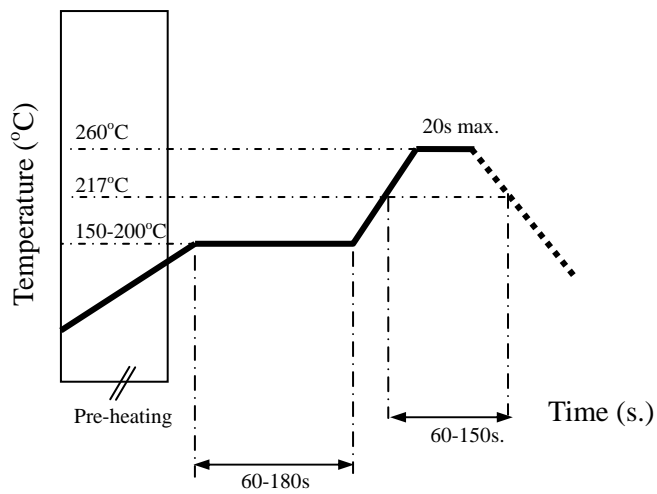
Mechanical & Environmental Characteristics

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"> 10N 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, 1.6mm) using the recommend soldering profile. Apply a bending force of 2mm 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 :



Notes

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

Advanced Ceramic X Corp.

16 Tzu Chiang Road, Hsinchu Industrial District Hsinchu Hsien 303, Taiwan

TEL:886-3-5987008 FAX:886-3-5987001

E-mail: acx@acxc.com.tw

<http://www.acxc.com.tw>