ACX
Advanced Ceramic X

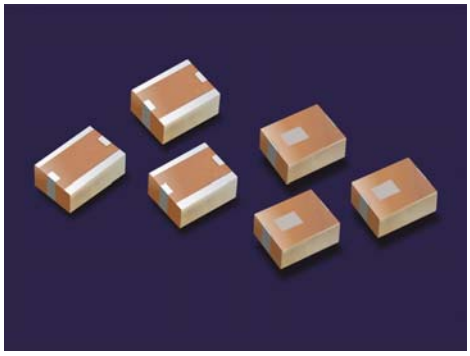
LF 3225 Series

Multilayer Chip Low-Pass Filters

Features

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

❖RoHS compliant



Applications

❖0.8-6GHz wireless communication systems, including DECT / PACS / PHS / GSM / DCS / PCS phones, WLAN card, Bluetooth modules, etc.

Specifications

Part Number	Frequency Range (MHz)	Insertion Loss @ BW (dB)	VSWR @ BW	Ripple (dB)	Attenuation
LF3225-L1R2CAB_	950 ~ 1450	2.0 max.	2.2 max.	0.35 max. @ 1425 ~1450MHz (+ 25°C)	24 min. @ 1650 ~2150MHz

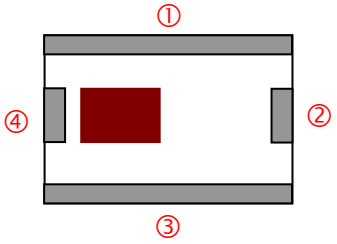
Q'ty/Reel (pcs) : 2,000
Operating Temperature Range : -40 ~ +85 °C
Storage Temperature Range : -40 ~ +85 °C
Storage Period : 12 months max.*
*12 months in vacuum sealed bag and 1 week after opened. Please keep unused parts in vacuum sealed bags.
Solder Paste : SAC 305 type is recommended.
Power Capacity : 3W max.

Part Number

LF	3225	-	L	1R2	CAB	◻	/LF
①	②		③	④	⑤	⑥	⑦

① Type	LF : Low Pass Filter	② Dimensions (L × W)	3.2 × 2.5 mm
③ Material Code	L	④ Frequency Range	1R2=1200MHz
⑤ Specification Code	CAB	⑥ Packaging	T: Tape & Reel B: Bulk
⑦ Soldering	/LF=lead-free		

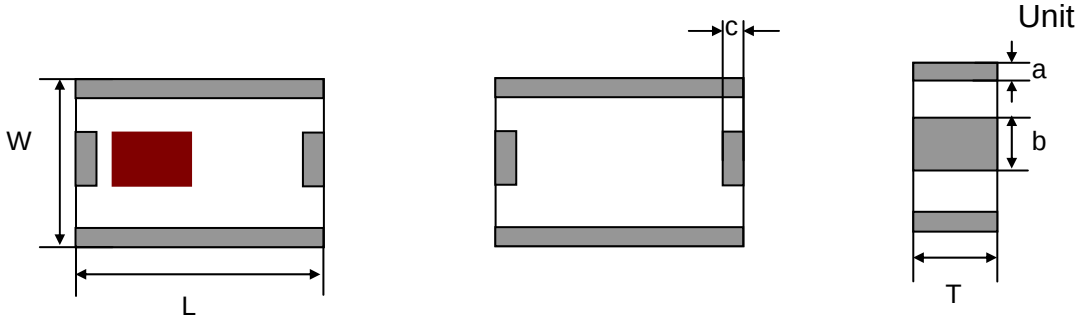
Terminal Configuration



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

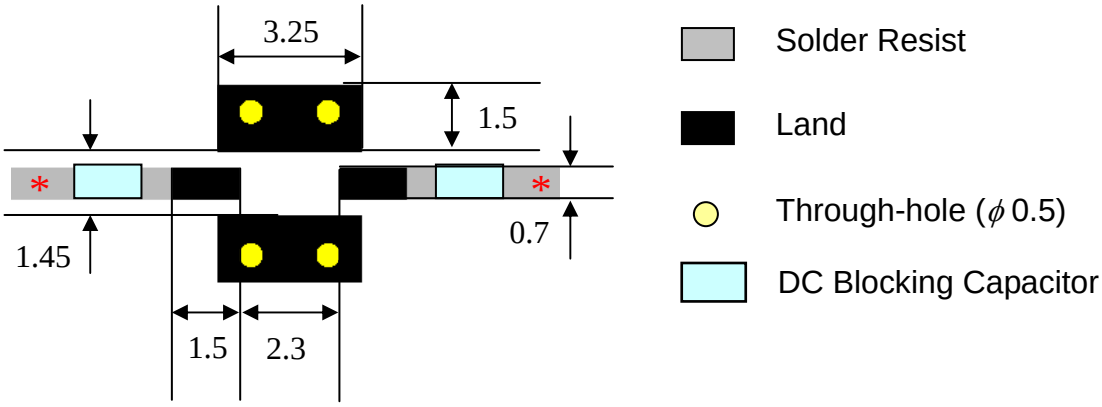
Dimensions and Recommended PC Board Pattern

Unit : mm



< Top View> < Bottom View> < Side View >

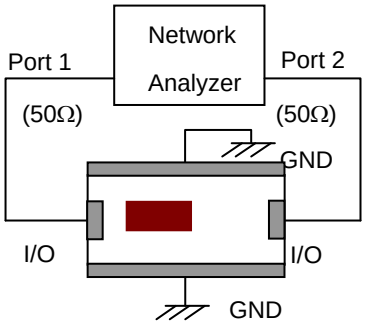
Mark	L	W	T	a	b	c
Dimensions	3.2 ± 0.2	2.5 ± 0.2	1.5 ± 0.1	0.4 ± 0.2	0.6 ± 0.2	0.3± 0.15



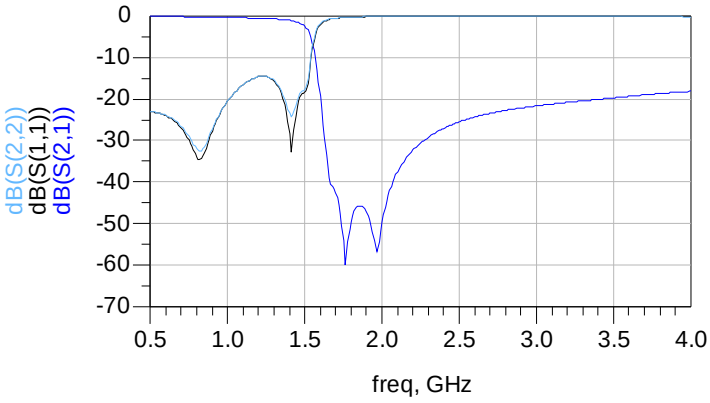
* Line width should be designed to match 50 Ω characteristic impedance, depending on PCB material and thickness.

* DC Blocking capacitor is connected in series at each In/Out Port.

Measuring Diagram



Electrical Characteristics (T=25°C)



Notes

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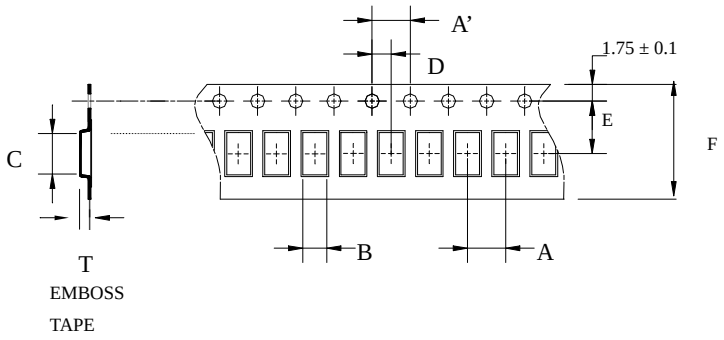
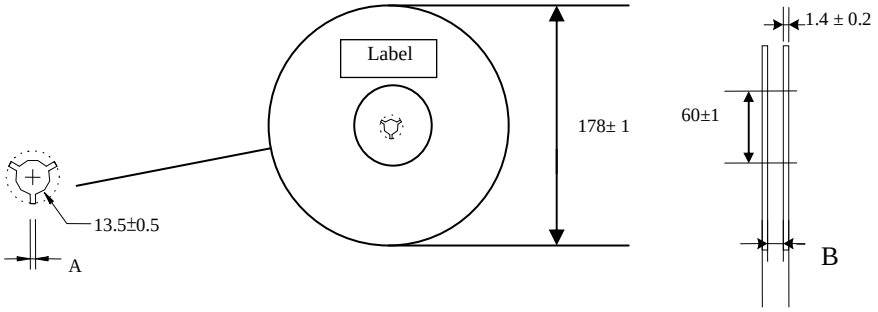
Taping Specifications

❖Tape Dimensions (Unit: mm) & Quantity



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

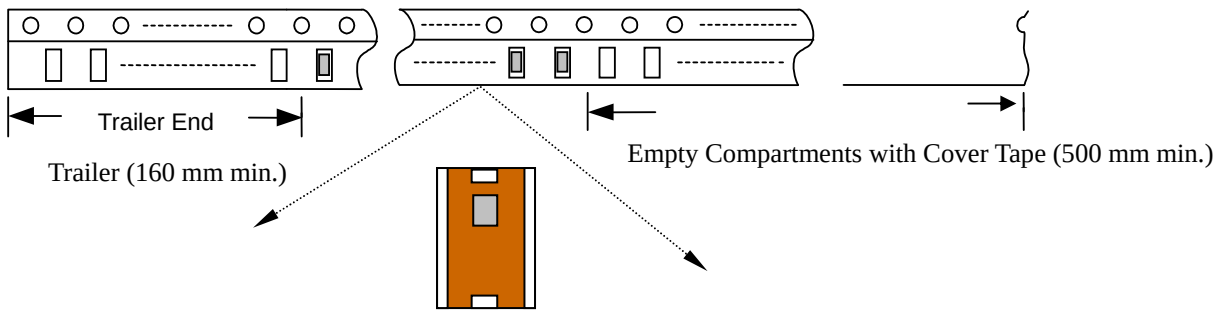
❖Reel Dimensions (Unit: mm)



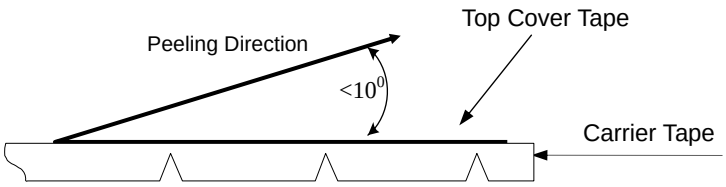
Label: Customer's Name,
ACX P/N, Q'ty, Date,
ACX Corp.

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

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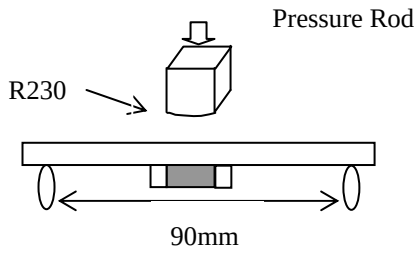
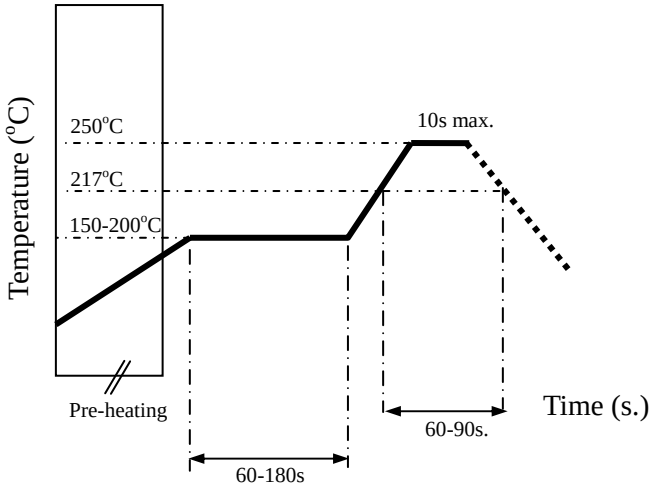
Mechanical & Environmental Characteristics

Item	Requirements	Procedure
Solderability	1. No apparent damage 2. More than 75% 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. 10N 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 2. Fulfill the electrical specification	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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