Standardized Information for Process/Product Change Notification (PCN)

1. PCN basic data		
1.1 Company	YAGEO GROUP	YAGEO Group No. 16, West. 3rd St., Nanzi Dist., Kaohsiung (N.T.I.P.) 811626, Taiwan
1.2 PCN No.	EBR-26004	
1.3 Title of PCN	Add SZ Production Site and Material System of CC / X7R / 1206 / 100V / 2.2μF	
1.4 Product Category	MLCC CC X7R Series	
1.5 Issue date	24-Mar-26	

2. PCN Team		
2.1 Contact Supplier		
2.1.1 Name	Dennis Hung	
2.1.2 Phone	NA	
2.1.3 Email	dennis.hung@yageo.com	
2.2 Team supplier		
2.2.1 Name	2.2.2 Phone	2.2.3 Email
Joshua Chen	NA	joshua.chen@yageo.com
Alfonso Chao	NA	alfonso.chao@yageo.com
Rina Chuang	NA	rina.chuang@yageo.com

3. Changes			
No.	3.0 Ident	3.1 Category	3.2 Type of change
#1	PAS-CER-MA-03	Change of material composition - Dielectric	Change from inner Ni A to inner Ni B
#2	PAS-CER-DE-06	Changes of inner construction - Number of layers	See Appendix
#3	PAS-CER-PF-01	Manufacturing site transfer or movement of a part of production process to a different location/site	Change of manufacturing site. Includes transfer as well as additional site.

4. Description of Change		
	Old	New
Change #1	Inner Ni paste A	Inner Ni paste B
Change #2	See Appendix	See Appendix
Change #3	Production site : KHH, Taiwan	Production site: SZ, China
4.1 Anticipated impact on form, fit, function, reliability or processability?		

5. Resaon / motivation for change	
5.1 Motivation	For better productivity
5.2 Additional explanation	

6. Marking of parts / traceability of change	
6.1 Description	N/A

7. Timing / schedule		
7.1 Date of qualification results	24-Mar-26	
7.2 Last order date (optional)	23-Jun-26	
7.3 Last delivery date (optional)	23-Sep-26	
7.4 Intended start of delivery	23-Jun-26	
7.5 Qualification samples avaliable?	Yes, avaliable	
7.6 Customer feedback required until	23-Jun-26	

Standardized Information for Process/Product Change Notification (PCN)

8. Qualification / validation			
8.1 Description	IEC-60384		
8.2 Qualification report	avaliable (See attachment)	Issue date	24-Mar-26

9. Input to customer for risk assessment process

10. Attachments (e.g. new datasheet, additional documentation, qualification report, …)
Qualification report Customer feedback

11. Affected parts				
11.1 Current			11.2 New (if applicable)	
YAGEO PNs	Part Name	Additional part information	YAGEO PNs	Part Name
CC1206KFX7R0BB225	1206, X7R, 100V, 2.2µF, +/-10%			
CC1206KKX7R0BB225	1206, X7R, 100V, 2.2µF, +/-10%			

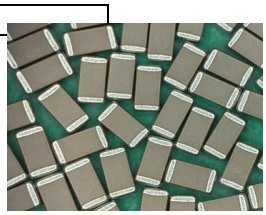
Appendix

YPN
CC1206KKX7R0BB225

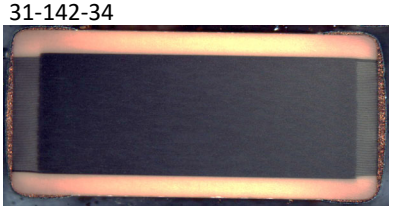
Original Design

New Design

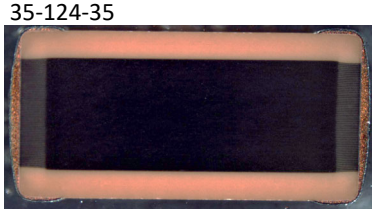
Appearance



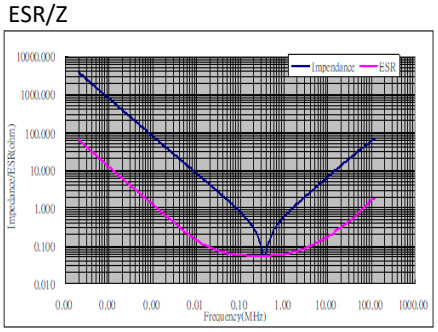
Construction
31-142-34

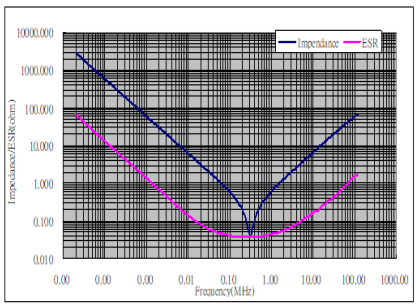


35-124-35

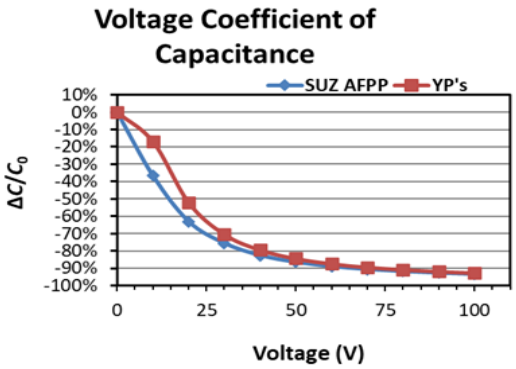


ESR/Z





VCC



New
Original

Electrical characteristic

	Original			New			
	Spec	Avg.	Max.	Min.	Avg.	Max.	Min.
D.F	5%	3.10%	3.22%	3.03%	2.62%	2.70%	2.56%
I.R.	45 M ohm	318 M ohm	349 M ohm	299 M ohm	765 M ohm	830 M ohm	710 M ohm
BDV		464	500	420	701	772	653

Reliability Test Report

Product: **CC/X7R/1206/2.2uF/100V**

Prepared by: Vito Hu

Vito Hu– QL Engineer / MLCC BU

Approved by: Nancy zhang

Nancy Zhang – QL Head / MLCC BU

1. Purpose

This report shows reliability data of X7R/1206/2.2uF/100V products,

The test items follow international specification IEC60384.

2. Test Sample

Type		Size	Cap.	Tolerance	Ur
Batch1	X7R	1206	2.2uF	±10%	100V

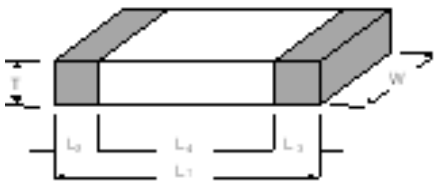
3. Conclusion & Summary

Test item		Batch1
4.1	Dimension	0/10
4.2	Voltage proof	0/10
4.3	Solderability	0/50
4.4	T.C.	0/5
4.5	Adhesion	0/10
4.6	Bending	0/10
4.7	Resistance to soldering heat	0/50
4.8	Rapid change of Temperature	0/60
4.9	Endurance	0/60
4.10	Damp heat with load	0/60

4. Level measurement

4.1 Dimension

Test item: Dimension

MLCC Single Chip


Size	L1	W	T	L2	L3
X7R 1206/2.2uF	2.90~3.50	1.40~1.80	1.40~1.80	0.25~0.80	0.25~0.80

Sample size: 10 pcs

Results: All can meet the requirement.

ITEM		L1 (mm)	W (mm)	T (mm)	L2 (mm)	L3 (mm)
Batch1	Min.	3.218	1.687	1.684	0.510	0.490
	Max	3.245	1.713	1.699	0.598	0.561
	Avg.	3.232	1.697	1.691	0.550	0.535
	Std.	0.007	0.007	0.005	0.028	0.023

4.2 Voltage proof

Test condition: Applied 2.5Ur for 5 seconds.

Sample size: 10 pcs

Requirement: No breakdown or flashover

Result: All can meet the requirement.

4.3 Solderability

Condition: Unmounted chips completely immersed for 3 ± 0.3 sec in a solder bath at 245±5°C

Sample size: 50 pcs

Requirement: Good tinning (≥95% covered); no visual damage

Result: All can meet the requirement.

4.4 Temperature coefficient

Test condition: At -55°C and 125°C ref. Temperature is 25°C

Sample size: 5 pcs

Requirement: ΔC/C: ± 15%

Results: All can meet the requirement.

ITEM		RESULT			
		MIN.	MAX.	AVG	Std.
Batch1	Low	-12.432%	-12.310%	-12.384%	0.051%
	High	-9.725%	-8.607%	-8.966%	0.472%

4.5 Adhesion

Test condition: A force aplied for 10 seconds to the line joining the terminations and in a plane parallel to the substrate;.

Sample size: 10 pcs

Requirement: 1206: 5N(0.51kg)

Results: All can meet the requirement

4.6 Bending

Condition: Bending at 1mm/s Depth 1.0mm

Sample size: 10 pcs

Requirement: At 1mm, X7R within ±12.5% (High Cap) no visual damage.

Results: All can meet the requirement.

ITEM		RESULT			
		MIN.	MAX.	AVG	Std.
Batch1	ΔC/C	-0.161%	-0.028%	-0.090%	0.056%

4.7 Resistance to soldering heat

Test condition: Temperature of solder bath: 260±5°C

Immersion time: 10±0.5s

Sample size: 50 pcs

Requirements: No visual damage.

Item		ΔC/C (%)	D.F. (%)	IR
Requirement	X7R 1206/2.2uF	±10%	≦5%	≧100(ΩF)

Result: All can meet the requirement

ITEM		RESULT			
		MIN.	MAX.	AVG	Std.
Batch1	ΔC/C	-0.484%	1.155%	-0.002%	0.330%
	DF	2.763%	3.142%	2.928%	0.077%
	IR (Re/S.S)	0/50			

4.8 Rapid change of temperature

Test condition: -55 °C/125°C, 5 cycles,30 minutes at Lower category temperature;

30 minutes at Upper category temperature

Sample size: 60 pcs

Requirement:

Item		ΔC/C (%)	D.F. (%)	IR
Requirement	X7R 1206/2.2uF	±15%	≦5%	≧100(ΩF)

Result: All can meet the requirement

ITEM		RESULT			
		MIN.	MAX.	AVG	Std.
Batch1	ΔC/C	-6.131%	-2.013%	-3.351%	0.586%
	DF	2.905%	3.216%	3.044%	0.074%
	IR (Re/S.S)	0/60			

4.9 Endurance

Test condition: Applied 1.5Ur at 125±2°C for 1000±12hrs.

Sample size: 60 pcs

Requirement:

Item		ΔC/C (%)	D.F. (%)	IR
Requirement	X7R 1206/2.2uF	±20%	≦10%	≧10(ΩF)

Results: All can meet the requirement.

ITEM		RESULT			
		MIN.	MAX.	AVG	Std.
Batch1	ΔC/C	-6.642%	-3.614%	-4.962%	0.601%
	DF	2.165%	3.731%	2.417%	0.345%
	IR (Re/S.S)	0/60			

4.10 Damp heat with load

Test condition: Applied Ur at 40±2°C/RH 90%~95% for 500±12hrs.

Sample size: 60 pcs

Requirement:

Item		ΔC/C (%)	D.F. (%)	IR
Requirement	X7R 1206/2.2uF	±20%	≦10%	≧5(ΩF)

Results: All can meet the requirement.

ITEM		RESULT			
		MIN.	MAX.	AVG	Std.
Batch1	ΔC/C	1.000%	2.200%	1.802%	0.165%
	DF	3.055%	3.630%	3.186%	0.093%
	IR (Re/S.S)	0/60			

Customer Feedback / Approval Form

Title of PCN:			
Add SZ Production Site and Material System of CC / X7R / 1206 / 100V / 2.2µF			
Customer PCN No.:		Supplier PCN No.:	EBR-26004
Please check the appropriate box below:			

☐	1. Feedback	date:	
☐	We agree with this proposed change for the parts as listed in chapter ' 11. Affected parts.' Approval letter will be sent in written form.		
☐	We agree with this proposed change schedule and will start with the PCN process. Approval letter will be sent in written form after evaluation.		
☐	We disapprove because:		
☐	Remark:		

☐	2. Feedback	date:	
☐	We acknowledge qualification / validation as assigned in chapter 8 of the PCN.		
☐	We need more information:		
☐	We need the following samples:		
☐	Estimated closing date for PCN:		

☐	Final Feedback / Approval	date:	

Sender:	
Company:	
Name:	
Address / Location:	
Signature:	
Date:	

Please return to : [your sales partner]	
Name:	
Address / Location:	
Signature:	
Date:	