Product Change Notification / RMES-19ZBNI141

Date:

14-Feb-2022

Product Category:

Memory

PCN Type:

Manufacturing Change

Notification Subject:

CCB 4685 Final Notice: Qualification of Ag on lead (Inner Lead Plating) material for selected SST26WF080B and SST26WF040B device families available in 8L UDFN (2x3x0.55mm) package.

Affected CPNs:

RMES-19ZBNI141_Affected_CPN_02142022.pdf
RMES-19ZBNI141_Affected_CPN_02142022.csv

Notification Text:

PCN Status: Final Notification

PCN Type: Manufacturing Change

Microchip Parts Affected: Please open one of the files found in the Affected CPNs section.
Note: For your convenience Microchip includes identical files in two formats (.pdf and .xls)

Description of Change: Qualification of Ag on lead (Inner Lead Plating) material for selected SST26WF080B and SST26WF040B device families available in 8L UDFN (2x3x0.55mm) package.

Pre and Post Change Summary:

	Pre Change	Post Change

Assembly Site		UTAC Thai Limited (NSEB)	UTAC Thai Limited (NSEB)
Wire Material		Au	Au
Die Attach Material		HR-5104 (DAF)	HR-5104 (DAF)
Molding Compound Material		G700LTD	G700LTD
Lead Frame	Material	EFTEC-64T	EFTEC-64T
		See Pre and Post Change Summary for comparison	
	Inner Lead Plating (Bond Finger)	NiPdAu (Pd Custom Plating)	Ag (Ag on lead only)
	Lead Finish Plating	Matte Tin	Matte Tin

Impacts to Data Sheet: None

Change Impact None

Reason for Change: To improve productivity by qualifying Ag on lead (Inner Lead Plating) material.

Change Implementation Status: In Progress

Estimated First Ship Date: March 15, 2022 (date code: 2212)

Note: Please be advised that after the estimated first ship date customers may receive pre and post change parts.

Time Table Summary:

	May 2021					**>**	**February 2022**				**March 2022**				
Workweek	19	20	21	22	23		06	07	08	09	10	11	12	13	14
Initial PCN Issue Date				X											
Qual Report Availability									X						
Final PCN Issue Date									X						
Estimated Implementation Date													X		

Method to Identify Change: Traceability code

Qualification Report: Please open the attachments included with this PCN labeled as PCN_#_Qual_Report.

Revision History: May 28, 2021: Issued initial notification.
February 14, 2022: Issued final notification. Attached the Qualification Report. Provided estimated first ship date to be on March 15, 2022.

The change described in this PCN does not alter Microchip's current regulatory compliance regarding the material content of the applicable products.

Attachments:

PCN_RMES-19ZBNI141_Qual_Report.pdf
PCN_RMES-19ZBNI141_Pre and Post Change Summary.pdf

Please contact your local Microchip sales office with questions or concerns regarding this notification.

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Affected Catalog Part Numbers (CPN)

SST26WF080BT-104I/NP
SST26WF080BAT-104I/NP
SST26WF040BT-104I/NP
SST26WF040BAT-104I/NP
SST26WF040BT-104I/NPINTC

CCB 4685
Pre and Post Change Summary
PCN #: RMES-19ZBNI141

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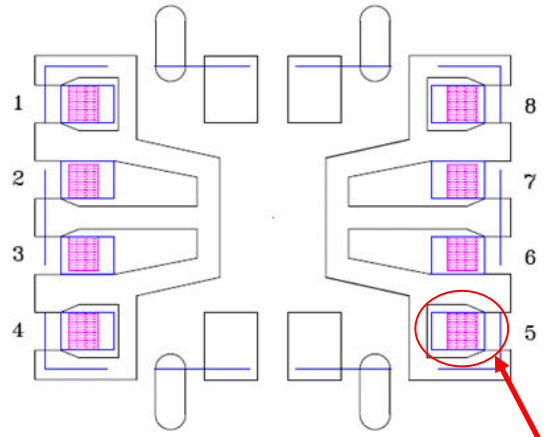
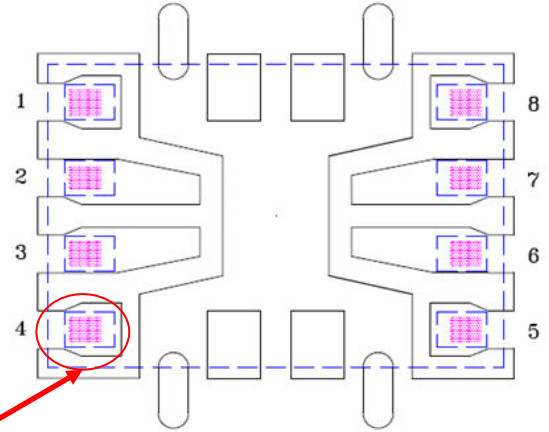
SMART | CONNECTED | SECURE

Qualification of Ag on lead (Inner Lead Plating) material for selected SST26WF080B and SST26WF040B device families available in 8L UDFN (2x3x0.55mm) package.

Lead Frame Comparison

	PRE CHANGE	POST CHANGE	REMARKS
LF package/type	8L UDFN 2x3x0.55mm	8L UDFN 2x3x0.55mm	Same
Inner Lead Plating (Bond Finger)	NiPdAu (Pd Custom Plating)	Ag (Ag on lead only)	Different
Lead Finish Plating	Matte Tin	Matte Tin	Same
LF Material	EFTEC-64T	EFTEC-64T	Same
LF Drawing			Different

Inner Lead Plating (Bond Finger)

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QUALIFICATION REPORT SUMMARY

RELIABILITY LABORATORY

PCN #: RMES-19ZBNI141

Date:
February 1, 2022

Qualification of Ag on lead (Inner Lead Plating) material for selected SST26WF080B and SST26WF040B device families available in 8L UDFN (2x3x0.55mm) package.

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PACKAGE QUALIFICATION REPORT

Purpose	Qualification of Ag on lead (Inner Lead Plating) material for selected SST26WF080B and SST26WF040B device families available in 8L UDFN (2x3x0.55mm) package.
CN	ES361628
QUAL ID	R2100989 rev A
MP CODE	S0203TPRXA00
Part No.	SST26WF080BT-104I/NP
Bonding No.	BDM-002933 Rev. A
CCB No.	4685

Package

Type	8L UDFN
Package size	2 x 3 x 0.55 mm

Lead Frame

Paddle size	COL
Material	EFTEC-64T
Surface	Ag on lead only
Process	Etched
Lead Lock	No
Part Number	FU0274

Material

Epoxy	HR-5104 (DAF)
Wire	Au wire
Mold Compound	G700LTD
Plating Composition	Matte Sn

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PACKAGE QUALIFICATION REPORT

Manufacturing Information

Assembly Lot No.	Wafer Lot No.	Date Code
NSEB222000012.000	SCB1919447177.700	213238G
NSEB222000013.000	SCB1919447177.700	213239T
NSEB222000014.000	SCB1919447177.700	21323A3

Result [X] Pass [ ] Fail [ ] _____

8L UDFN (2x3x0.55 mm) assembled by NSEB pass reliability test per QCI-39000. This package was qualified the Moisture/Reflow Sensitivity Classification Level 1 at 260°C reflow temperature per IPC/JEDEC J-STD-020E standard.

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS	Result	Remarks
<u>Precondition Prior Perform Reliability Tests</u> (At MSL Level 1)	**Electrical Test:** +25°C and 85°C System: NEXTEST_PV2	JESD22-A113	693(0)	693		Good Devices
	Bake 150°C, 24 hrs System: CHINEE	JIP/ IPC/JEDEC J-STD-020E		693		
	85°C/85%RH Moisture Soak 168 hrs. System: TABAI ESPEC Model PR-3SPH			693		
	3x Convection-Reflow 265°C max System: Vitronics Soltec MR1243			693		
	Electrical Test: +25°C and 85°C System: NEXTEST_PV2			0/693	Pass	

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
Temp Cycle	**Stress Condition:** -65°C to +150°C, 500 Cycles System: TABAI ESPEC TSA-70H	JESD22-A104		231		Parts had been pre-conditioned at 260°C
	Electrical Test: +85°C System: NEXTEST_PV2		231(0)	0/231	Pass	77 units / lot
	Bond Strength: Wire Pull (> 2.5 grams)		15 (0)	0/15	Pass	
	Bond Shear (>15.00 grams)		15 (0)	0/15	Pass	
UNBIASED-HAST	**Stress Condition:** +130°C/85%RH, 96 hrs. System: HAST 6000X	JESD22-A118		231		Parts had been pre-conditioned at 260°C
	Electrical Test: +25°C System: NEXTEST_PV2		231(0)	0/231	Pass	77 units / lot
HAST	**Stress Condition:** +130°C/85%RH, 96 hrs. **Bias Volt:** 1.95 Volts System: HAST 6000X	JESD22-A110		231		Parts had been pre-conditioned at 260°C
	Electrical Test: + 25°C and 85°C System: NEXTEST_PV2		231(0)	0/231	Pass	77 units / lot

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
High Temperature Storage Life	**Stress Condition:** Bake 175°C, 504 hrs System: SHEL LAB **Electrical Test:** + 25°C and 85°C System: NEXTEST_PV2	JESD22-A103	45 45(0)	45 0/45	Pass	45 units
Solderability **Temp 215°C**	**Steam Aging:** Temp 93°C,8Hrs System: SAS-3000 Solder Dipping: Solder Temp.215°C Solder material: SnPb Sn63, Pb37 System: ERSA RA 2200D Visual Inspection: External Visual Inspection	J-STD-002	22 (0)	22 22 0/22	Pass	
Solderability **Temp 245°C**	**Steam Aging:** Temp 93°C,8Hrs System: SAS-3000 Solder Dipping:Solder Temp.245°C Solder material:Pb Free Sn 95.5Ag3.9 Cu0.6 System: ERSA RA 2200D Visual Inspection: External Visual Inspection	J-STD-002	22 (0)	22 22 0/22	Pass	
Wire sweep	Wire sweep Inspection 15 Wires / lot	-	45(0) Wires	0/45	Pass	
Physical Dimensions	Physical Dimension, 10 units from 1 lot	JESD22-B100/B108	30(0) Units	0/30	Pass	
Bond Strength Data Assembly	Wire Pull (> 3.00 grams) Bond Shear (> 13.00 grams)	Mil. Std. 883-2011 CDF-AEC-Q100-001	30 (0) Wires 30 (0) bonds	0/30 0/30	Pass Pass	