

#### Product Change Notification / RMES-19ZBNI141

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29-May-2021

#### **Product Category:**

Memory

#### **PCN Type:**

Manufacturing Change

#### **Notification Subject:**

CCB 4685 Initial 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\_05292021.pdf RMES-19ZBNI141\_Affected\_CPN\_05292021.csv

#### **Notification Text:**

PCN Status:Initial 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					
Load from a material	EFTEC-64T	EFTEC-64T					
Lead frame material	See Pre and Post Change Summary for comparison						
Inner Lead Plating	NiPdAu	Ag					
(Bond Finger)	(Pd Custom Plating)	(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 Qualification Completion Date:**October 2021

Note: Please be advised the qualification completion times may be extended because of unforeseen business conditions however implementation will not occur until after qualification has completed and a final PCN has been issued. The final PCN will include the qualification report and estimated first ship date. Also note that after the estimated first ship date guided in the final PCN customers may receive pre and post change parts.

#### **Time Table Summary:**

	May 2021							Octo	ber 2	2021	
Workweek	19	20	2 1	22	23	^	41	42	43	44	45
Initial PCN Issue Date				х							
Qual Report Availability											Х
Final PCN Issue Date											Х

#### Method to Identify Change:

Traceability code

**Qualification Plan:**Please open the attachments included with this PCN labeled as PCN\_#\_Qual\_Plan. **Revision History:** 

May 28, 2021: Issued initial notification.

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\_Plan.pdf PCN\_RMES-19ZBNI141\_Pre and Post Change Summary.pdf

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

#### **Terms and Conditions:**

If you wish to <u>receive Microchip PCNs via email</u> please register for our PCN email service at our <u>PCN</u> home page select register then fill in the required fields. You will find instructions about registering for Microchips PCN email service in the <u>PCN FAQ</u> section.

If you wish to <u>change your PCN profile</u>, <u>including opt out</u>, please go to the <u>PCN home page</u> select login and sign into your myMicrochip account. Select a profile option from the left navigation bar and make the applicable selections.

RMES-19ZBNI141-CCB~4685~Initial~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 Catalog Part Numbers (CPN)

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

Date: Friday, May 28, 2021

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



A Leading Provider of Smart, Connected and Secure Embedded Control Solutions



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		1 7 7 3 4 4 5 5 5	Different





### **QUALIFICATION PLAN SUMMARY**

**PCN #: RMES-19ZBNI141** 

Date: May 13, 2021

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

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

CCB Number: 4685

	Assembly site	NSEB (UTL)			
	BD Number	BDM-002933A			
	MP Code (MPC)	S0203TPRXA00			
Minn	Part Number (CPN)	SST26WF080BT-104I/NP			
Misc.	MSL information	MSL-1 @260C			
	Assembly Shipping Media (T/R, Tube/Tray)	T/R			
	Base Quantity Multiple (BQM)	3000			
	Reliability Site	MTAI			
	Paddle size	COL			
	Material	EFTEC-64T			
	Inner Lead Plating (Bond Finger)	Ag on lead only			
	Treatment	No			
	Process	Etched			
<u>Lead-Frame</u>	Lead-lock	No			
	Part Number	FU0274			
	Lead frame Thickness	5 mils			
	Lead Finished Plating	Matte Tin			
	Strip Size	70x250 mm			
	Strip Density	1690 units			
Bond Wire	Material	Au			
Die Attach	Part Number	HR-5104 (DAF)			
<u>Die Attach</u>	Conductive	No			
MC	Part Number	G700LTD			
	PKG Type	UDFN			
<u>PKG</u>	Pin/Ball Count	8			
	PKG width/size	2x3x0.55mm			

Test Name	Conditions	Sample Size	Min. Qty of Spares per Lot (should be properly marked)	Qty of Lots	Total Units	Fail Accept Qty	Est. Dur. Days	ATE Test Site	REL Test Site	Pkg. Type	Special Instructions
Standard Pb-free Solderability	J-STD-002D; Perform 8 hour steam aging for Matte tin finish and 1 hour steam aging for NiPdAu finish prior to testing.  Standard Pb-free: Matte tin/ NiPdAu finish, SAC solder, wetting temp 245°C for both SMD & through hole packages.	22	5	1	27	> 95% lead coverage	5		MTAI		Standard Pb-free solderability is the requirement.  SnPb solderability (backward solderability-
Backward Solderability	J-STD-002D; Perform 8 hours steam aging for Matte tin finish and 1 hour steam aging for NiPdAu finish prior to testing.  Backward: Matte tin/ NiPdAu finish, SnPb solder, wetting temp 215°C for SMD.	22	5	1	27	> 95% lead coverage	5		MTAI		SMD reflow soldering) is required for any plating related changes and highly recommended for other package BOM changes.
Wire Bond Pull - WBP	Mil. Std. 883-2011	5	0	1	5	0 fails after TC	5		NSEB		30 bonds from a min. 5 devices.
Wire Bond Shear - WBS	CDF-AEC-Q100-001	5	0	1	5	0	5		NSEB		30 bonds from a min. 5 devices.
Wire Sweep									NSEB		Required for any reduction in wire bond thickness.
Physical Dimensions	Measure per JESD22 B100 and B108	10	0	3	30	0	5		NSEB		
External Visual	Mil. Std. 883-2009/2010	All devices prior to submission for qualification testing	0	3	ALL	0	5		NSEB		

Test Name	Conditions	Sample Size	Min. Qty of Spares per Lot (should be properly marked)	Qty of Lots	Total Units	Fail Accept Qty	Est. Dur. Days	ATE Test Site	REL Test Site	Pkg. Type	Special Instructions
Preconditioning - Required for surface mount devices	+150°C Bake for 24 hours, moisture loading requirements per MSL level + 3X reflow at peak reflow temperature per Jedec-STD-020E for package type; Electrical test pre and post stress at +25°C.  MSL1@ 260C	231	15	3	738	0	15	MTAI	MTAI		Spares should be properly identified. 77 parts from each lot to be used for HAST, uHAST, Temp Cycle test.
HAST	+130°C/85% RH for 96 hours  Electrical test pre and post stress at +25°C and hot temp.	77	5	3	246	0	10	MTAI	MTAI		Spares should be properly identified. Use the parts which have gone through Preconditioning.
UHAST	+130°C/85% RH for 96 hrs  Electrical test pre and post stress at +25°C	77	5	3	246	0	10	MTAI	MTAI		Spares should be properly identified. Use the parts which have gone through Preconditioning.
Temp Cycle	-65°C to +150°C for 500 cycles.  Electrical test pre and post stress at hot temp; 3-gram force WBP, on 5 devices from 1 lot, test following Temp Cycle stress.	77	5	3	246	0	15	MTAI	MTAI		Spares should be properly identified. Use the parts which have gone through Preconditioning.