



Product Change Notification - GBNG-31RCYV061

Date:

03 May 2019

Product Category:

OTN Processors & PHYs

Affected CPNs:**Notification subject:**

CCB 3744 Initial Notice: Qualification of ASE as a new bumping facility and assembly site for selected Microsemi CBU products of the 28nm TSMC wafer technology available in 1932L BBGA (45x45x4.0mm) package.

Notification text:**PCN Status:**

Initial notification

PCN Type:

Manufacturing Change

Microchip Parts Affected:

Please open one of the icons found in the Affected CPNs section above.

NOTE: For your convenience Microchip includes identical files in two formats (.pdf and .xls).

Description of Change:

Qualification of ASE as a new bumping facility and assembly site for selected Microsemi CBU products of the 28nm TSMC wafer technology available in 1932L BBGA (45x45x4.0mm) package.

Pre Change:

Assembled at ATK site and bumping facility at ATT using NAU-27-1F underfill material.

Post Change:

Assembled and bumping facility at ASE site using UA59 underfill material.

Pre and Post Change Summary:

	Pre Change	Post Change
Assembly Site	Amkor Technology Korea (K4), INC. (ATK)	ASE Inc. (ASE)
Bumping facility	Amkor Technology Taiwan (ATT)	
Bump material	SnAg	SnAg
Underfill material	NAU-27-1F	UA59

Impacts to Data Sheet:

None

Change Impact:

None

Reason for Change:

To improve on time delivery performance by qualifying ASE as a new bumping facility and assembly site.

Change Implementation Status:

In Progress

Estimated Qualification Completion Date:

June 2019



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 2019					June 2019					
Workweek	18	19	20	21	22	22	23	24	25	26	
Initial PCN Issue Date	X										
Qual Report Availability								X			
Final PCN Issue Date								X			

Method to Identify Change:

Traceability code

Qualification Plan:

Please open the attachments included with this PCN labeled as PCN_#_Qual Plan.

Revision History:

May 03, 2019: 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.

Attachment(s):

[PCN_GBNG-31RCYV061_Qual_Plan.pdf](#)

Please contact your local [Microchip sales office](#) with questions or concerns regarding this notification.

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If you wish to change your PCN profile, including opt out, please go to the [PCN home page](#) select login and sign into your myMicrochip account. Select a profile option from the left navigation bar and make the applicable selections.

Affected Catalog Part Numbers (CPN)

PM5980B-FEI
PM5981B-FEI
PM5984B-FEI
PM5985B-FEI
PM5986A-FEI
PM5990B-FEI
PM5991B-FEI
PM5991B-FEI-PD
PM5992B-FEI
PM5993B-FEI
PM5997B-FEI
PM5998B-FEI



QUALIFICATION PLAN SUMMARY

PCN #: GBNG-31RCYV061

Date
February 25, 2019

Qualification of ASE as a new bumping facility and assembly site for selected Microsemi CBU products of the 28nm TSMC wafer technology available in 1932L BBGA (45x45x4.0mm) package.

Purpose: Qualification of ASE as a new bumping facility and assembly site for selected Microsemi CBU products of the 28nm TSMC wafer technology available in 1932L BBGA (45x45x4.0mm) package.

<u>Misc.</u>	Assembly site	ASEK
	CCB No	3744
	Part Number (CPN)	PM5980B-FEI, PM5984B-FEI, PM5985B-FEI, PM5986B-FEI, PM5990B-FEI, PM5991B-FEI, PM5992B-FEI, PM5993B-FEI, PM5997B-FEI, PM5998B-FEI, PM5981B-FEI
<u>Substrate</u>	Body Size	45x45
	Bump SRO Material	SAC305 (ULA)
<u>Bump</u>	Bumping Site	ASEK
	Material	Sn1.8Ag
<u>Underfill</u>	Part Number	UA59
<u>Heat Spreader</u>	Type	Cavity type
<u>PKG</u>	PKG Type	HFCBGA
	Pin/Ball Count	1932
	PKG width/size	45x45
<u>Die</u>	Fab Process (site)	TSMC
<u>MSL</u>	MSL	4

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	Special Instructions
Solder Ball Shear	JESD22B117A	5	0	1	5		2	10 balls/5 units. Parts should gone Preconditioning
Coplanarity	JESD22B108A/POD	5	0	1	5		2	All units
High Temperature Storage Life (HTSL)	JESD22A-103. 150°C for 1008 hours. Readpoints at 0, and 1008 hours. Electrical test pre and post stress at +25°C and hot temp.	40	5	4	160	0	45	Spare should be properly identified.
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. JESD22A113.	117	15	4	468	0	15	Spares should be properly identified. 231 parts from each lot to be used for HAST, UHAST & Temp Cycle test.
Unbiased HAST	JESD22A110. +130°C/85% RH for 96 hours or +110°C/85% RH for 264 hours. Electrical test pre and post stress at +25°C.	40	5	4	160	0	10	Spare should be properly identified. Use the parts which have gone through Pre-conditioning.
Temp Cycle	JESD22A104. -55°C to +125°C for 1000 cycles. Electrical test pre and post stress at +25°C. JESD22A113.	77	5	4	308	0	30	