



Product Change Notification / GBNG-12EUHF585

Date:

16-Apr-2021

Product Category:

Memory

PCN Type:

Manufacturing Change

Notification Subject:

CCB 4635 Initial Notice: Qualification of MMT as a new assembly site for selected Atmel AT27C040, AT27C080 and AT27LV040A device families available in 32L PLCC (11.5x14x3.37mm) package.

Affected CPNs:

[GBNG-12EUHF585_Affected_CPN_04162021.pdf](#)
[GBNG-12EUHF585_Affected_CPN_04162021.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 MMT as a new assembly site for selected Atmel AT27C040, AT27C080 and AT27LV040A device families available in 32L PLCC (11.5x14x3.37mm) package.

Pre and Post Change Summary:

		Pre Change		Post Change
Assembly Site		Lingsen Precision Industries, Taiwan (LPI)		Microchip Technology Thailand (Branch)/ (MMT)
Wire material		Au		Au
Die attach material		CRM-1033BF		3280
Molding compound material		G600V		G600V
Lead frame	Material	C151		A194
	Paddle size	225x260 mils	200x365 mils	200x365 mils
	Design	See attached Pre and Post Change comparison		

Impacts to Data Sheet:

None

Change Impact:

None

Reason for Change:

To improve manufacturability by qualifying MMT as new assembly site.

Change Implementation Status:

In Progress

Estimated Qualification Completion Date:

May 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:

Workweek	April 2021				May 2021				
	15	16	17	18	19	20	21	22	23
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:

April 16, 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_GBNG-12EUHF585_Qual_Plan.pdf](#)

[PCN_GBNG-12EUHF585_Pre and Post Change Summary.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)

AT27C040-70JU

AT27C040-90JU

AT27C040-70JU-T

AT27C040-90JU-T

AT27C080-90JU

AT27C080-90JU-T

AT27LV040A-90JU

AT27LV040A-90JU-T

CCB 4635
Pre and Post Change Summary
PCN #: GBNG-12EUHF585



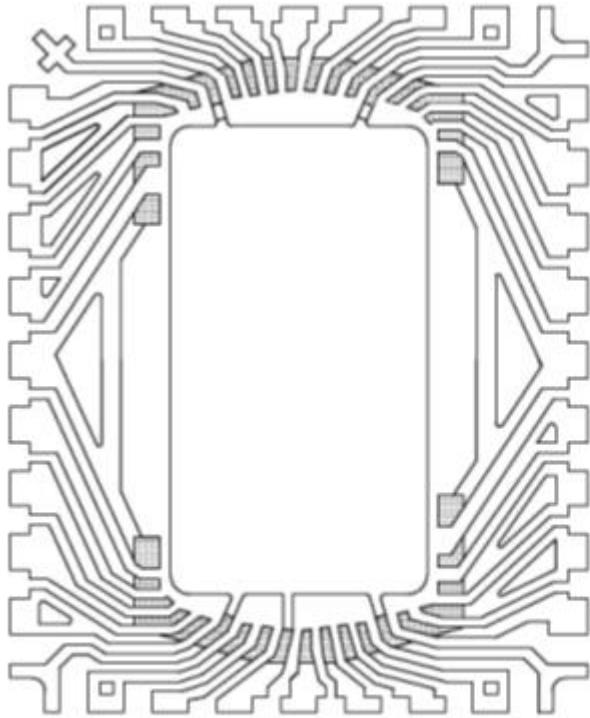
A Leading Provider of Smart, Connected and Secure Embedded Control Solutions



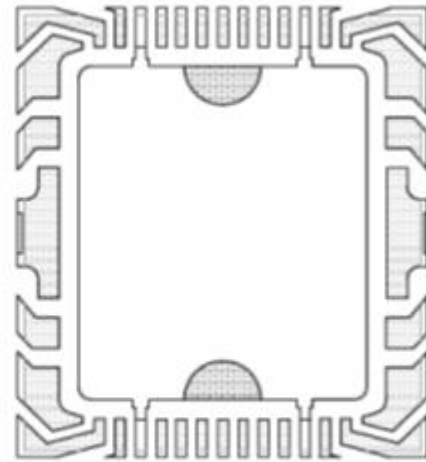
SMART | CONNECTED | SECURE

Lead frame Pre and Post Change

LPI

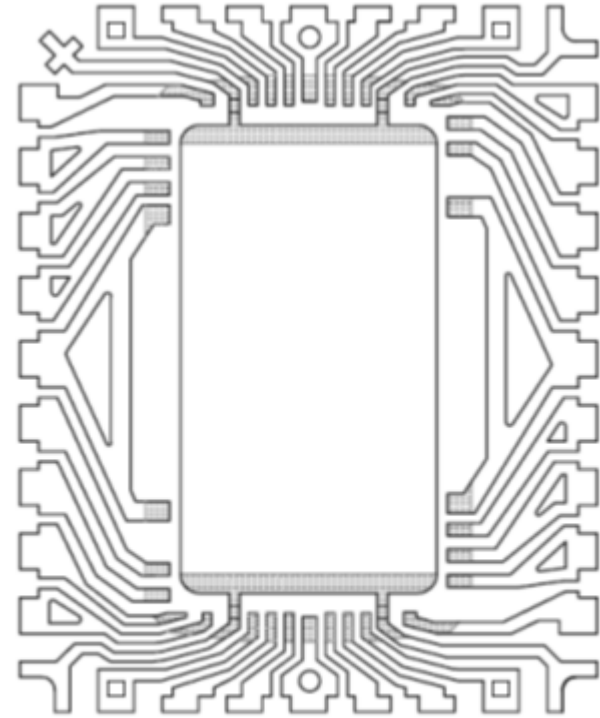


PAD SIZE:200x365 MILS
FUSED LEAD ON PIN#16



PAD SIZE:225x260 MILS
NON-FUSED LEAD ON PIN#16

MMT



PAD SIZE:200x365 MILS
NON-FUSED LEAD ON PIN#16



QUALIFICATION PLAN SUMMARY

PCN #: GBNG-12EUHF585

**Date:
April 01, 2021**

**Qualification of MMT as a new assembly site for selected
Atmel AT27C040, AT27C080 and AT27LV040A device families
available in 32L PLCC (11.5x14x3.37mm) package.**

**Purpose: Qualification of MMT as a new assembly site for selected Atmel
AT27C040, AT27C080 and AT27LV040A device families available in 32L
PLCC (11.5x14x3.37mm) package.**

CCB No.: 4635

		2 lots	1 lot
<u>Misc.</u>	Assembly site	MMT	
	BD Number	BDM-002871/B	BDM-002872/B
	MP Code (MPC)	34A107P3XC01	34A127P3XC01
	Part Number (CPN)	AT27C040-70JU	AT27C080-90JU
	MSL information	MSL-2/245	MSL-2/245
	Assembly Shipping Media (T/R, Tube/Tray)	TUBE	TUBE
	Base Quantity Multiple (BQM)	32	32
	Reliability Site	MTAI	MTAI
<u>Lead-Frame</u>	Paddle size	200x365 mils	200x365 mils
	Material	A194	A194
	DAP Surface Prep	Ag Ring Plated	Ag Ring Plated
	Treatment	None	None
	Process	Etched	Etched
	Lead-lock	No	No
	Part Number	10103212	10103212
	Lead Plating	Matte Tin	Matte Tin
	Strip Size	8.749x2.756 in.	8.749x2.756 in.
Strip Density	24 units/strip	24 units/strip	
<u>Bond Wire</u>	Material	Au	Au
<u>Die Attach</u>	Part Number	3280	3280
	Conductive	Yes	Yes
<u>Die Coat</u>	Part Number	ME-4039	ME-4039
	Manufacturer	Dow Corning	Dow Corning
<u>MC</u>	Part Number	G600V	G600V
<u>PKG</u>	PKG Type	PLCC	PLCC
	Pin/Ball Count	32	32
	PKG width/size	11.5x14x3.37mm	11.5x14x3.37mm

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	Test Site	Special Instructions
Standard Pb-free Solderability	J-STD-002 ; 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- 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	3	15	0 fails after TC	5	MMT/MTAI	30 bonds from a minimum of 5 devices.
Wire Bond Shear - WBS	CDF-AEC-Q100-001	5	0	3	15		5	MMT/MTAI	30 bonds from a minimum of 5 devices.
Wire Sweep		5	0	3	15	0		MMT	Required for any reduction in wire bond thickness.
External Visual	Mil. Std. 883-2009/2010	All devices prior to submission for qualification testing	0	3	ALL	0	5	MMT/ MTAI	
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. MSL-2@245°C	231	15	3	738	0	15	MTAI	Spares should be properly identified. 77 parts from each lot to be used for HAST, Autoclave, Temp Cycle test.

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	Test Site	Special Instructions
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	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.
Unbiased HAST	+130°C/85% RH for 96 hrs. Electrical test pre and post stress at +25°C.	77	5	3	246	0	10	MTAI	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.
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	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.