

**Product Change Notification - GBNG-06YZDC217**


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**Date:**

26 Mar 2020

**Product Category:**

Motor Drivers

**Affected CPNs:**

**Notification subject:**

CCB 4135 Initial Notice: Qualification of MMT as an additional assembly site for selected MCP8025xx and MCP8026xx device families available in 40L QFN (5x5x0.9mm) and VQFN (5x5x0.9mm) packages.

**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 MMT as an additional assembly site for selected MCP8025xx and MCP8026xx device families available in 40L QFN (5x5x0.9mm) and VQFN (5x5x0.9mm) packages.

**Pre Change:**

Assembled at NSEB using 8200T or 8600 die attach and G770HCD or G700LTD molding compound material.

**Post Change:**

Assembled at NSEB using 8200T or 8600 die attach and G770HCD or G700LTD molding compound material or assembled at MMT using 3280 die attach and G700LTD molding compound material.

**Pre and Post Change Summary:**

	Pre Change		Post Change		
<b>Assembly Site</b>	UTAC Thai Limited (UTL-1) LTD. (NSEB)		UTAC Thai Limited (UTL-1) LTD. (NSEB)		Microchip Technology Thailand (Branch) (MMT)
<b>Wire material</b>	Au		Au		Au
<b>Die attach material</b>	8200T	8600	8200T	8600	3280
<b>Molding compound material</b>	G770HCD	G700LTD	G770HCD	G700LTD	G700LTD
<b>Lead frame material</b>	C194		C194		C194

**Impacts to Data Sheet:**

None

**Change Impact:**

None

**Reason for Change:**

To improve on-time delivery and performance by qualifying MMT as an additional assembly site.

**Change Implementation Status:**



In Progress

**Estimated Qualification Completion Date:**

May 2020

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:**

	March 2020					-->	May 2020				
Workweek	10	11	12	13	14		18	19	20	21	22
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:**

**March 26, 2020:** 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-06YZDC217\\_Qual\\_Plan.pdf](#)

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

**Terms and Conditions:**

If you wish to receive Microchip PCNs via email please register for our PCN email service at our [PCN home page](#) select register then fill in the required fields. You will find instructions about registering for Microchips PCN email service in the [PCN FAQ](#) section.

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)

MCP8025-115E/MP  
MCP8026-115E/MP  
MCP8026-115E/MPB3  
MCP8025A-115E/MP  
MCP8025T-115H/MP  
MCP8026T-115H/MP  
MCP8025AT-115H/MP  
MCP8025T-115H/MPVAO  
MCP8025AT-115H/MPVAO  
MCP8025-115H/MP  
MCP8026-115H/MP  
MCP8025A-115H/MP  
MCP8025A-115H/MPVAO  
MCP8025T-115E/MP  
MCP8026T-115E/MP  
MCP8026T-115E/MPB3  
MCP8025AT-115E/MP



## **QUALIFICATION PLAN SUMMARY**

**PCN#: GBNG-06YZDC217**

**Date:  
February 19, 2020**

**Qualification of MMT as an additional assembly site for selected MCP8025xx and MCP8026xx device families available in 40L QFN (5x5x0.9mm) and VQFN (5x5x0.9mm) packages. This is a Q100 grade 0 qualification.**

**Purpose: Qualification of MMT as an additional assembly site for selected MCP8025xx and MCP8026xx device families available in 40L QFN (5x5x0.9mm) and VQFN (5x5x0.9mm) packages. This is a Q100 grade 0 qualification.**

**CCB No.: 4135**

Assembly site	MMT
BD Number	BDM-002338 rev.B
MP Code (MPC)	VGBD3JNHXA02
Part Number (CPN)	MCP8025T-115H/NHX
MSL information	MSL1/260
Assembly Shipping Media (T/R, Tube/Tray)	T/R
Base Quantity Multiple (BQM)	3300
Reliability Site	MTAI
Paddle size	154x154
Lead frame Material	C194
DAP Surface Prep	Ag ring plated
Treatment	Yes
Process	Etched
Lead-lock	No
Part Number	10104013
Lead Plating	Matte Tin
Strip Size	70x250mm
Strip Density	440
Wire Material	Au
Die attach Part Number	3280
Conductive	Yes
Molding compound Part Number	G700LTD
PKG Type	VQFN-WFS
Pin/Ball Count	40
PKG width/size	5x5mm

Test Name	Conditions	Reliability Stress Read Point Grade 0: -40°C to +150°C (MCHP H Temp)	Pre & Post Reliability Stress Test Temperature Grade 0: -40°C to +150°C (MCHP H Temp)	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
Standard Pb-free Solderability	J-STD-002D ; Perform 8 hours of 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	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.
Backward Solderability	J-STD-002D ; Perform 8 hour steam aging for Matte tin finish and 1 hr 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	
Wire Bond Pull - WBP	Mil. Std. 883-2011			5	0	1	5	0 fails after TC	5	30 bonds from a min. 5 devices.
Wire Bond Shear - WBS	CDF-AEC-Q100-001			5	0	1	5		5	30 bonds from a min. 5 devices.
Physical Dimensions	Measure per JESD22 B100 and B108			10	0	3	30		5	
External Visual	Mil. Std. 883-2009/2010			All devices prior to submission for qualification testing	0	3	ALL	0	5	
HTSL (High Temp Storage Life)	JESD22-A103 +175°C	Grade 0: 1000 hrs (+175°C)	Grade 0: +25°C, +85°C, +125°C, +150°C	45	5	1	50	0	21 - 83	Spares should be properly identified.
Preconditioning - Required for surface mount devices	J-STD-020JESD22-A113+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. MSL-1/260°C		Grade 0: +25°C	231+ 45 (for devices requiring PTC)	15+ 5 (for devices requiring PTC)	3	738+ 50 (for devices requiring PTC)	0	15	Spares should be properly identified. 77 parts from each lot to be used for HAST, Autoclave, Temp Cycle test. 45 parts from one lot to be used for PTC test (for devices requiring PTC).

Test Name	Conditions	Reliability Stress Read Point Grade 0: -40°C to +150°C (MCHP H Temp)	Pre & Post Reliability Stress Test Temperature Grade 0: -40°C to +150°C (MCHP H Temp)	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
HAST	JESD22-A101 or A110 +130°C/85% RH for 96 hrs	Grade 0: 96 hrs (+130°C/85% RH)	Grade 0: +25°C, +85°C, +125°C, +150°C	77	5	3	246	0	10 - 14	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.
UHAST	JESD22-A102, A118, or A101 +130°C/85% RH for 96 hrs	Grade 0: 96 hrs (+130°C/85% RH)	Grade 0: +25°C	77	5	3	246	0	10	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.
Temp Cycle	JESD22-A104 and Appendix 3 -55°C to +150°C	Grade 0: 2000 cycles (- 55°C to +150°C)	Grade 0: +85°C, +125°C, +150°C	77	5	3	246	0	15 - 60	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.
Power Temperature Cycling (For devices requiring PTC)	JESD22-A105 -40°C to +150°C, -40°C to +125°C or -40°C to +105°C	Grade 0: 1000 cycle (- 40°C to +150°C)	Grade 0: +25°C, +85°C, +125°C, +150°C	45	5	1	50	0		Spares should be properly identified. PC before PTC for surface mount devices.