



Product Change Notification - LIAL-28JJJA274

Date:

04 Feb 2019

Product Category:

Driver / Interface ICs

Affected CPNs:**Notification subject:**

CCB 3705 Initial Notice: Qualification of GTK as a new assembly site for selected Micrel products with BCDM process technology available in 24L SOIC 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 GTK as a new assembly site for selected Micrel product manufactured with the BCDM process technology available in 24L SOIC package.

Pre Change:

Assembled at ANAP using 8290 die attach material.

Post Change:

Assembled at GTK using EN-4900 die attach material.

Pre and Post Change Summary:

	Pre Change	Post Change
Assembly Site	Amkor Technology Philippine (P1/P2), INC. (ANAP)	GREATEK ELETRONIC INC. (GTK)
Wire material	Au	Au
Die attach material	8290	EN-4900
Molding compound material	G600	G600
Lead frame material	A194	A194
MSL	MSL 2	MSL 3

Impacts to Data Sheet:

None

Change Impact:



None

Reason for Change:

To improve on-time delivery performance by qualifying GTK as a new 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:

	February 2019					->	June 2019				
Workweek	05	06	07	08	09		23	24	25	26	27
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:

February 4, 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_LIAL-28JJJA274_QUAL_PLAN.pdf](#)

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

Terms and Conditions:

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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)

MIC5801YWM

MIC5801YWM-TR

MIC58P01YWM

MIC58P01YWM-TR

MIC59P50YWM

MIC59P50YWM-TR



QUALIFICATION PLAN SUMMARY

PCN#: LIAL-28JJJA274

Date
January 24, 2019

**Qualification of GTK as a new assembly site for selected Micrel
product manufactured with the BCDM process technology
available in 24L SOIC package.**

Purpose: Qualification of GTK as a new assembly site for selected Micrel product manufactured with the BCDM process technology available in 24L SOIC package

CCB No.: 3705

Miscellaneous	Assembly site	GREATEK(GTK)
	BD Number	GTK1811546
	MP Code (MPC)	208497K3XA02
	Part Number (CPN)	MIC59P50YWM
Lead-Frame	Paddle size	190x220 mil
	Material	A194
	DAP Surface Prep (Spot/Ring/Double ring)	Double Ring
	Treatment (roughened/ brown oxide(BOT) /micro-etched/ none)	Non roughened
	Process (stamped/Etched)	Stamped
	Lead-lock (Y/N)	Yes
	Part Number	11-0224W-007
	Lead Plating	Matte Sn
	Strip Size	213.36 x 58.42 mm
	Strip Density	4 x 10
Bond Wire	Material	Au
Die Attach	Part Number	EN-4900GC
	Conductive	Yes
Mold Compound	Part Number	G600F
PKG	PKG Type	SOIC
	Pin/Ball Count	24
	PKG width/size	300 mils
Die	Die Thickness	12mils
	Die Size	123.5x143.5mils
	Fab Process (site)	NON_150K (TMPE8)
Assembly Shipping	Ship in strip / Singulated	Singulated
	Tray / Tube / Canister	Tube
	Tray / Tube / Canister	20 inches
	Plug	31
MSL		3 / 260L

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
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	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	1	5	0 fails after TC	5	30 bonds from a minimum of 5 devices.
Wire Bond Shear - WBS	CDF-AEC-Q100-001	5	0	1	5	0	5	30 bonds from a minimum of 5 devices.
Physical Dimensions	Measure per JESD22 B100 and B108	10	0	3	30	0	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)	+175 C for 504 hours. Electrical test pre and post stress at +25C and hot temp.	45	5	1	50	0	10	Must be in progress at time of package release to production, but completion is not required for release to production
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. MSL3 / 260°C – 3 lots MSL2 .260°C – 1 lot (for reference only)	231	15	3	738	0	15	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	Special Instructions
HAST	+130°C/85% RH for 96 hours or Electrical test pre and post stress at +25°C and hot temp.	77	5	3	246	0	10	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.
UHAST	+130°C/85% RH for 96 hrs Electrical test pre and post stress at +25°C	77	5	3	246	0	10	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; 3gram force WBP, on 5 devices from 1 lot, test following Temp Cycle stress.	77	5	3	246	0	15	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.