Product Change Notification / LIAL-31LFQR391

Date:

19-Aug-2021

Product Category:

Memory

PCN Type:

Manufacturing Change

Notification Subject:

CCB 4255 Final Notice: Qualification of GTK as a new assembly site for selected Atmel AT27C0xx device families available in 32L PDIP (.600in) package.

Affected CPNs:

LIAL-31LFQR391_Affected_CPN_08192021.pdf
LIAL-31LFQR391_Affected_CPN_08192021.csv

Notification Text:

PCN Status: Final 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 GTK as a new assembly site for selected Atmel AT27C0xx device families available in 32L PDIP (.600in) package

Pre Change:
Assembled at LPI using CRM-1033BF die attach and G600 molding compound material

Post Change:
Assembled at GTK using EN-4900GC die attach and G631M molding compound material

Pre and Post Change Summary:

	Pre Change	Post Change
Assembly Site	Lingsen Precision Industries, LTD. (LPI)	GREATEK ELETRONIC INC. (GTK)
Wire material	Au	Au
Die attach material	CRM-1033BF	EN-4900GC
Die coat material	Q1-4939	Q1-4939
Molding compound material	G600	G631M
Lead frame material	A194	A194

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 First Ship Date: September 14, 2021 (date code: 2138)

NOTE: Please be advised that after the estimated first ship date customers may receive pre and post change parts.

Time Table Summary:

	June 2020					**->**	**August 2021**					**September 2021**			
Workweek	23	24	25	26	27		32	33	34	35	36	37	38	39	40
Initial PCN Issue Date		X													
Qual Report Availability									X						
Final PCN Issue Date									X						
Estimated first ship date													X		

Method to Identify Change: Traceability code

Qualification Report: Please open the attachments included with this PCN labeled as PCN_#_Qual Report.

Revision History:June 8, 2020: Issued initial notification.**July 15, 2020:** Re-issued initial notification to correct the typographical error on the tube in length for LPI.**August 19, 2021:** Issued final notification. Attached the qualification report. Provided estimated first ship date to be on September 14, 2021. Updated Die coat post change material from PIX-8144 to Q1-4939. Updated Pre and Post change summary table to remove the tube packing media comparison and remove the Packing Pre and Post Change attachment as there will be no changes to the tube material.

The change described in this PCN does not alter Microchip's current regulatory compliance regarding the material content of the applicable products.

Attachments:

PCN_LIAL-31LFQR391_Qual_Report.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)

AT27C020-55PU
AT27C020-90PU
AT27C040-70PU
AT27C040-90PU
AT27C080-90PU
AT27C010-70PU

QUALIFICATION REPORT SUMMARY
RELIABILITY LABORATORY

PCN #: LIAL-31LFQR391

Date:
July 30, 2021

Qualification of GTK as a new assembly site for selected Atmel AT27C0xx device families available in 32L PDIP (.600in) package.

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Package Qualification Report

Purpose: Qualification of GTK as a new assembly site for selected Atmel AT27C0xx device families available in 32L PDIP (.600in) package.

Misc.	Assembly site	GTK
	BD Number	BDM-002840 A
	MP Code (MPC)	34A107P2XC01
	Part Number (CPN)	AT27C040-70PU
	MSL information	NA
	Assembly Shipping Media (T/R, Tube/Tray)	Tube (GTK 41-02002-001)
	Base Quantity Multiple (BQM)	12
	Reliability Site	MPHIL
	Qual ID	R2100569 rev A
	CCB No	4255
Lead-Frame	Paddle size	210 x 230
	Material	A194
	DAP Surface Prep	Spot Plating
	Treatment	None
	Process	Stamped
	Lead-lock	No
	Part Number	11-01032-006
	Lead Plating	Matte Sn
	Strip Size (mm)	1X6
	Strip Density	6 ea/strip
Bond Wire	Material	Au
Die Attach	Part Number	EN-4900GC
	Conductive	Yes
Conformal Die Coat	Part Number	Q1-4939
MC	Part Number	G631M
PKG	PKG Type	PDIP
	Pin/Ball Count	32
	PKG width/size	600 mils

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Package Qualification Report

Manufacturing Information

Assembly Lot No.	MPC	Trace Code
GTK-215000016.000	34A107P2XC01	2111A8G
GTK-215000017.000	34A107P2XC01	2111A97
GTK-215100001.000	34A107P2XC01	2112A9C

Result Pass ☒ Fail ☐ ☐ ______________________

600 mils PDIP32 L (P2X) at GTK Taiwan using Au wire is qualified and Passed Reliability Testing as specified in QCI39000-002.No anomalies observed on all units after Inspection and electrical testing.

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard / Method	Qty. (Acc.)	Def/SS	Result	Remarks
UNBIASED-HAST	**Stress Condition:** (Standard) +130°C/85%RH, 96H System: HIRAYAMA HASTEST PC-422R8	JESD22-A118	231(0)			
	Electrical Test: +25°C		231(0)	0/231	Pass	
BIASED-HAST	**Stress Condition:** (Standard) +130°C/85%RH, 96H System: HIRAYAMA HASTEST PC-422R8	JESD22-A110	231(0)			
	Electrical Test: +25°C, +85°C		231(0)	0/231	Pass	
Temp Cycle	**Stress Condition:** (Standard) -65°C to +150°C, 500 Cycles System: VOTSCH VT 7012 S2	JESD22-A104	231(0)			
	Electrical Test: +85°C		231(0)	0/231	Pass	
	Bond Strength: Wire Pull Bond Shear		15(0)	0/15	Pass	

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
High Temperature Storage Life	**Stress Condition:** Bake 175°C, 500 hrs System: HERAEUS	JESD22-A103	45 (0)			
	Electrical Test : +25°C +85°C		45 (0)	0/45	Pass	
Solderability Temp 245°C	**Bake:** Temp 155°C,4Hrs System:Oven Solder Bath: Temp.245°C	J-STD-002	22 (0)	0/22	Pass	Performed at MPHIL
Bond Strength Data Assembly	Wire Pull 1 lot, 30 wires from 5 units min	M2011.8 MIL-STD-883	30(0) Wires	0/30	Pass	
Bond Strength Data Assembly	Bond Shear 1 lot, 30 bonds from 5 units min	M2011.8 MIL-STD-883	30(0) bonds	0/30	Pass	