



Product Change Notification - LIAL-31LFQR391

Date:

08 Jun 2020

Product Category:

Memory

Affected CPNs:



Notification subject:

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

Pre Change:

Assembled at LPI using CRM-1033BF die attach, QI-4939 die coat and G600 molding compound material

Post Change:

Assembled at GTK using EN-4900GC die attach, PIX-8144 die coat 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	QI-4939	PIX-8144
Molding compound material	G600	G631M



Lead frame material		A194	A194
Packing media (Tube)	Base Quantity Multiple (BQM)	12	12
	Tube Color	Clear	Clear
	Plug Color	White / Green	White / Blue
	Tube Dimension and (Length)	Minor dimensional changes. See pre and post change comparison	
	Tube Drawing	See pre and post change comparison	

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:

November 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:

Workweek	June 2020					-->	November 2020				
	23	24	25	26	27		45	46	47	48	49
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:



June 8, 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 LIAL-31LFQR391_QUAL PLAN.pdf](#)

[PCN LIAL-31LFQR391_Packing Pre and Post Change.pdf](#)

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

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QUALIFICATION PLAN SUMMARY

PCN#: LIAL-31LFQR391

May 28, 2020

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

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

<u>Misc.</u>	Assembly site	GTK
	MP Code (MPC)	34A127P2XC01
	CCB #	4255
	Part Number (CPN)	AT27C080-90PU
	Assembly Shipping Media (T/R, Tube/Tray)	Tube (GTK 41-02002-001)
	Base Quantity Multiple (BQM)	12
	Reliability Site	MPHIL
<u>Lead-Frame</u>	Paddle size	330 x 360
	Material	A194
	DAP Surface Prep	Spot Plating
	Treatment	None
	Process	Stamped
	Lead-lock	Yes
	Part Number	11-01032-007
	Lead Plating	Matte Sn
	Strip Size (mm)	1X6
	Strip Density	6 ea/strip
<u>Bond Wire</u>	Material	Au
<u>Die Attach</u>	Part Number	EN-4900GC
	Conductive	Yes
<u>Mold Compound</u>	Part Number	G631M
<u>PKG</u>	PKG Type	PDIP
	Pin/Ball Count	32
	PKG width/size	600 mils

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	ATE Test Site	REL Test Site	Pkg. Type	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	MPHIL	MPHIL	PDIL32L	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	MPHIL	MPHIL	PDIL32L	30 bonds from a min. 5 devices.
Wire Bond Shear - WBS	CDF-AEC-Q100-001	5	0	1	5	0	5	MPHIL	MPHIL	PDIL32L	30 bonds from a min. 5 devices.
Physical Dimensions	Measure per JESD22 B100 and B108	10	0	3	30	0	5	MPHIL	MPHIL	PDIL32L	
Lead Integrity	JESD22 B105	5	0	1	5	0 (No lead breakage or cracks)	5	MPHIL	MPHIL	PDIL32L	10 leads from each of 5 parts. Not required for SMD, only required for through-hole.
External Visual	Mil. Std. 883-2009/2010	All devices prior to submission for qualification testing	0	3	ALL	0	5	MPHIL	MPHIL	PDIL32L	

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.	231	15	3	738	0	15	MPHIL	MPHIL	PDIL32L	Spares should be properly identified. 77 parts from each lot to be used for HAST, uHAST, Temp Cycle test.
HAST	+130°C/85% RH for 96 hours or 110°C/85%RH for 264 hours. Electrical test pre and post stress at hot temp.	77	5	3	246	0	10	MPHIL	MPHIL	PDIL32L	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.
UHAST	+130°C/85% RH for 96 hrs or +110°C/85% RH for 264 hrs. Electrical test pre and post stress at hot temp.	77	5	3	246	0	10	MPHIL	MPHIL	PDIL32L	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	MPHIL	MPHIL	PDIL32L	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.

CCB 4255
Pre and Post Change Summary
PCN# LIAL-31LFQR391



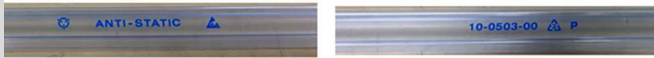
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Packing Information (Tube Comparison)

PRE-CHANGE (LPI)



Package	Lead Count	Body Size	Units/Tube	Length (inch)	End Plugs
PDIP	32	600 mils	12	20.250+/- 0.050	White/Green

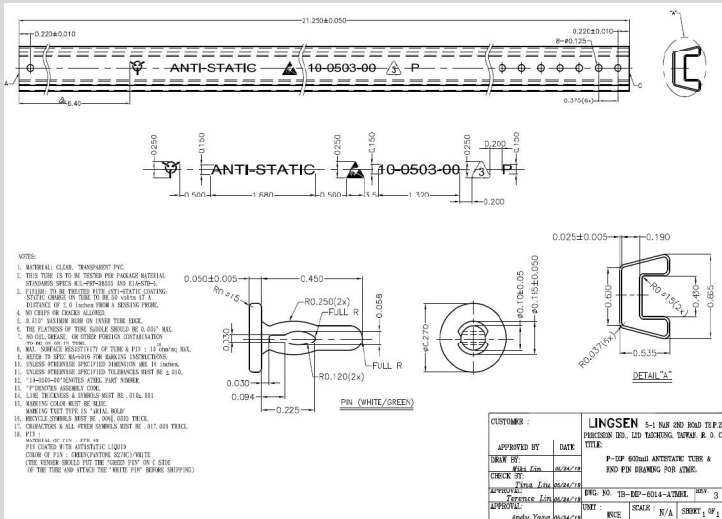
POST-CHANGE (GTK)



Package	Lead Count	Body Size	Units/Tube	Length (inch)	End Plugs
PDIP	32	600 mils	12	23.47+/- 0.030	White/Blue

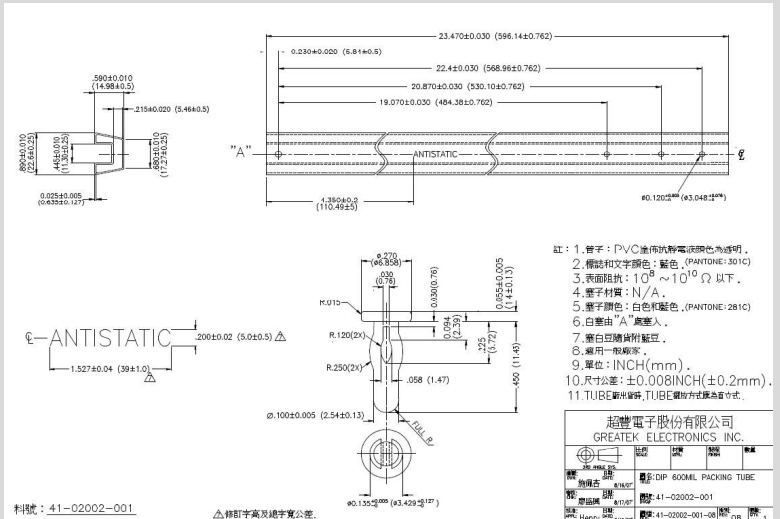
Packing Information (Tube Comparison)

PRE-CHANGE (LPI)



Tube Drawing

POST-CHANGE (GTK)



Tube Drawing

LIAL-31LFQR391 - CCB 4255 Initial Notice: Qualification of GTK as a new assembly site for selected Atmel

Affected Catalog Part Numbers(CPN)

AT27C020-55PU

AT27C020-90PU

AT27C040-70PU

AT27C040-90PU

AT27C080-90PU

AT27C010-70PU