

### Product Change Notification / LIAL-31LFQR391

## Date:

15-Jul-2020

# **Product Category:**

Memory

# PCN Type:

Manufacturing Change

# **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.

## Affected CPNs:

LIAL-31LFQR391\_Affected\_CPN\_07152020.pdf LIAL-31LFQR391\_Affected\_CPN\_07152020.csv

# 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			
Assem	bly Site	Lingsen Precision Industries, LTD. (LPI)	GREATEK ELETRONIC INC. (GTK)			
Wire n	naterial	Au	Au			
Die attac	n material	CRM-1033BF	EN-4900GC			
Die coat	material	QI-4939	PIX-8144			
Molding compound material		G600	G631M			
Lead fram	e material	A194	A194			
	Base Quantity Multiple (BQM)	12	12			
	Tube Color	Clear	Clear			
Packing media	Plug Color	White / Green	White / Blue			
(Tube)	Tube Dimension and (Length)	9	ges. See pre and post change nparison			
	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:

		Ju	ne 20	20		>		Nove	mber	2020	)
Workweek	23	24	25	26	27		45	46	47	48	49
Initial PCN Issue Date		Х									
Qual Report Availability											Х
Final PCN Issue Date											Х

#### 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.July 15, 2020: Re-issued initial notification to correct the typographical error on the tube in length for LPI.

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\_Packing Pre and Post Change\_RevA.pdf PCN\_LIAL-31LFQR391\_QUAL PLAN.pdf

Please contact your local Microchip sales office with questions or concerns regarding this notification.

#### **Terms and Conditions:**

If you wish to <u>receive Microchip PCNs via email</u> please register for our PCN email service at our <u>PCN</u> home page select register then fill in the required fields. You will find instructions about registering for Microchips PCN email service in the <u>PCN FAQ</u> section.

If you wish to <u>change your PCN profile</u>, <u>including opt out</u>, please go to the <u>PCN home page</u> select login and sign into your myMicrochip account. Select a profile option from the left navigation bar and make the applicable selections. LIAL-31LFQR391 - CCB 4255 Initial Notice: Qualification of GTK as a new assembly site for selected Atmel AT27C0xx device families available in 32L PDIP (.600in) package.

Affected Catalog Part Numbers (CPN)

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

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

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# Packing Information (Tube Comparison)

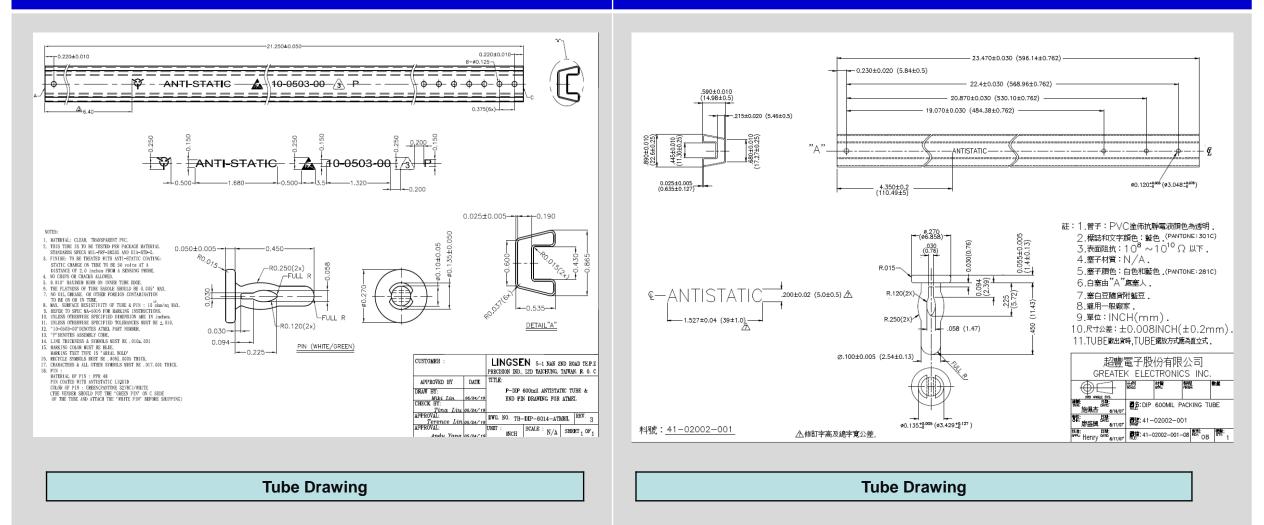
		PRE-	CHANGE (I	LPI)		POST-CHANGE (GTK)							
	ANTI-STATIC	anti-static		<b>10-0503-00</b> 10-0503-00 & Р	P		ANTISTATIC		ANTISTATIC	-			
Package	Lead Count	Body Size	Units/Tube	Length (inch)	End Plugs	Package	Lead Count	Body Size	Units/Tube	Length (inch)	End Plugs		
PDIP	32	600 mils	12	21.250+/- 0.050	White/Green	PDIP	32	600 mils	12	23.47+/- 0.030	White/Blue		



# **Packing Information (Tube Comparison)**

# PRE-CHANGE (LPI)

# **POST-CHANGE (GTK)**







# **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.

	Assembly site	GTK				
	MP Code (MPC)	34A127P2XC01				
	CCB #	4255				
	Part Number (CPN)	AT27C080-90PU				
<u>Misc.</u>	Assembly Shipping Media (T/R, Tube/Tray)	Tube (GTK 41-02002-001)				
	Base Quantity Multiple (BQM)	12				
	Reliability Site	MPHIL				
	Paddle size	330 x 360				
	Material	A194				
	DAP Surface Prep	Spot Plating				
	Treatment	None				
Lood Frama	Process	Stamped				
Lead-Frame	Lead-lock	Yes				
	Part Number	11-01032-007				
	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				
Mold Compound	Part Number	G631M				
	PKG Type	PDIP				
<u>PKG</u>	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.