



Product Change Notification / GBNG-25SJB110

Date:

29-Jun-2020

Product Category:

Memory

PCN Type:

Manufacturing Change

Notification Subject:

CCB 4271 Initial Notice: Qualification of GTK as a new assembly site for selected AT28BV64Bxx, AT28C64Bxx and AT28HC64Bxx Atmel device families available in 28L SOIC (300mils) package.

Affected CPNs:

[GBNG-25SJB110_Affected_CPN_06292020.pdf](#)
[GBNG-25SJB110_Affected_CPN_06292020.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 AT28BV64Bxx, AT28C64Bxx and AT28HC64Bxx Atmel device families available in 28L SOIC (300mils) package.

Pre Change:

Assembled at LPI using CRM-1033BF die attach material with MSL 2 classification.

Post Change:

Assembled at GTK using EN-4900GC die attach material with MSL 3 classification.

Pre and Post Change Summary:

		Pre Change	Post Change
Assembly Site		Lingsen Precision Industries, LTD. (LPI)	Greatek Electronic Inc. (GTK)
Wire material		Au	Au
Die attach material		CRM-1033BF	EN-4900GC
Molding compound material		G600	G600
Lead frame material		C194	C194
MSL Classification		MSL 2	MSL 3
Packing Media: Tube	Tube Color	Clear	Clear
	Plug Color	Black/Black	Blue/White
	Tube Dimension	Minor dimensional changes. 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:

	June 2020					-->	December 2020			
	23	24	25	26	27		49	50	51	52
Workweek										
Initial PCN Issue Date					X					
Qual Report Availability								X		

Final PCN Issue Date											X	
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Method to Identify Change:

Traceability code

Qualification Plan:

Please open the attachments included with this PCN labeled as PCN_#_Qual_Plan.

Revision History:

June 29, 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.

Attachments:

[PCN_GBNG-25SJB110_Pre_and_Post_Change_Summary.pdf](#)
[PCN_GBNG-25SJB110_Qual_Plan.pdf](#)

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

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QUALIFICATION PLAN SUMMARY

PCN #: GBNG-25SJJB110

Date
June 06, 2020

Qualification of GTK as a new assembly site for selected AT28BV64Bxx, AT28C64Bxx and AT28HC64Bxx Atmel device families available in 28L SOIC (300mils) package.

Purpose: Qualification of GTK as a new assembly site for selected AT28BV64Bxx, AT28C64Bxx and AT28HC64Bxx Atmel device families available in 28L SOIC (300mils) package.

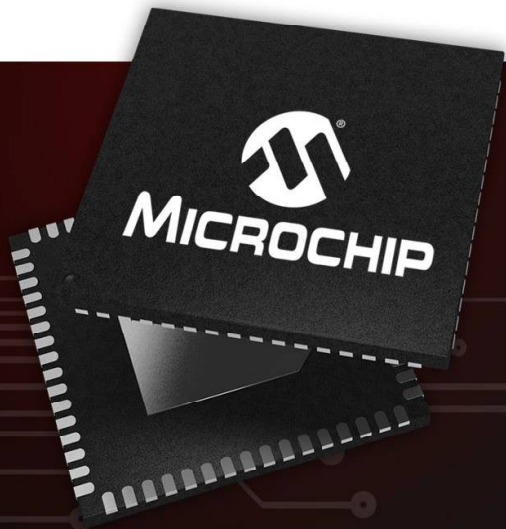
		Qual Vehicle
<u>Misc.</u>	Assembly site	GTK
	BD Number	NA
	MP Code (MPC)	198037N3XC01
	Part Number (CPN)	AT28C64B-15SU
	MSL information	MSL 3 / 260
	Assembly Shipping Media (T/R, Tube/Tray)	Tube
	Base Quantity Multiple (BQM)	27 units/tube
	Reliability Site	MPHIL
	CCB No	4271
<u>Lead-Frame</u>	Paddle size	160 x 205
	Material	A194
	DAP Surface Prep	DOUBLE RING
	Treatment	None
	Process	Stamped
	Lead-lock	No
	Part Number	11-0228W-010
	Lead Plating	Matte Sn
	Strip Size	4X8
	Strip Density	32
<u>Bond Wire</u>	Material	Au
<u>Die Attach</u>	Part Number	EN-4900GC
	Conductive	Yes
<u>MC</u>	Part Number	G600
<u>PKG</u>	PKG Type	SOIC
	Pin/Ball Count	28L
	PKG width/size	300mils

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	SOIC28L	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	SOIC28L	30 bonds from a min. 5 devices.
Wire Bond Shear - WBS	CDF-AEC-Q100-001	5	0	1	5		5	MPHIL	MPHIL	SOIC28L	30 bonds from a min. 5 devices.
Physical Dimensions	Measure per JESD22 B100 and B108	10	0	3	30		5	MPHIL	MPHIL	SOIC28L	
Lead Integrity	JESD22 B105	5	0	1	5	0 (No lead breakage or cracks)	5	MPHIL	MPHIL	SOIC28L	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	SOIC28L	
HTSL (High Temp Storage Life)	+175 C for 504 hours or 150°C for 1008 hrs. Electrical test pre and post stress at hot temp 85°C.	45	5	1	50	0	10	MPHIL	MPHIL	SOIC28L	Must be in progress at time of package release to production, but completion is not required for release to production.

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
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 and 85°C. MSL3/260c	231	15	3	738	0	15	MPHIL	MPHIL	SOIC28L	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 85°C.	77	5	3	246	0	10	MPHIL	MPHIL	SOIC28L	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 85°C.	77	5	3	246	0	10	MPHIL	MPHIL	SOIC28L	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 85°C; 3 gram force WBP, on 5 devices from 1 lot, test following Temp Cycle stress.	77	5	3	246	0	15	MPHIL	MPHIL	SOIC28L	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.



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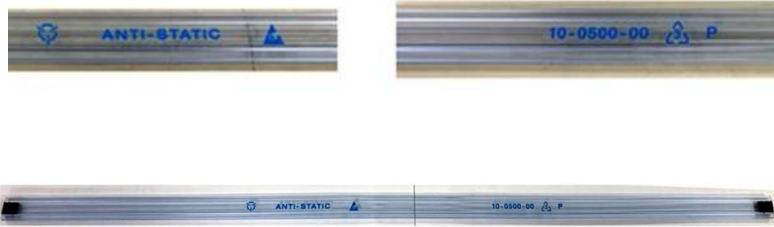


Pre and Post Change Summary
PCN #:GBNG-25SJJB110
CCB No. 4271



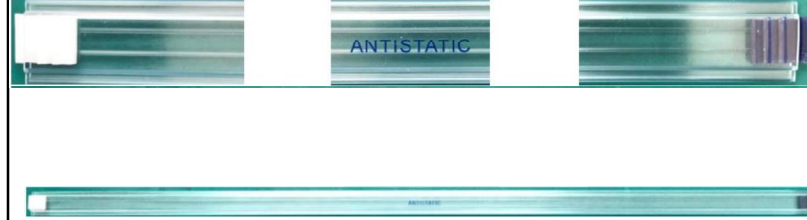
Pre and Post Change – Tube Packing Media

PRE-CHANGE / LPI



Package	Lead Count	Body Size	Units/ Tube	Length (inch)	End Plugs
SOIC	28	300 mils	27	20+/-0.10	Black/Black

POST-CHANGE / GTK



Package	Lead Count	Body Size	Units/ Tube	Length (inch)	End Plugs
SOIC	28	300 mils	27	20 +/- 0.05	Blue/White

Affected Catalog Part Numbers (CPN)

AT28C64B-15SU
AT28HC64B-70SU
AT28HC64B-90SU
AT28HC64B-12SU
AT28HC64BF-12SU
AT28BV64B-20SU
AT28HC64B-70SU-235
AT28HC64BF-70SU-T
AT28HC64BF-90SU-T
AT28C64B-15SU-T
AT28HC64B-70SU-T
AT28HC64B-90SU-T
AT28HC64B-12SU-T
AT28HC64BF-12SU-T
AT28BV64B-20SU-T