



## Product Change Notification - RMES-22JKYM836

**Date:**

23 Jun 2020

**Product Category:**

Memory

**Affected CPNs:**



**Notification subject:**

CCB 4270 Initial Notice: Qualification of GTK as a new assembly site for selected Atmel products available in 28L SOIC (.300in) 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 products available in 28L SOIC (.300in) 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	
<b>Assembly Site</b>		Lingsen Precision Industries, LTD. (LPI)		GREATEK ELETTRONIC INC. (GTK)	
<b>Wire material</b>		Au		Au	
<b>Die attach material</b>		CRM-1033BF		EN-4900GC	
<b>Molding compound material</b>		G600		G600	
<b>Lead frame material</b>		A194		A194	
<b>Packing media</b>	<b>Base Quantity Multiple (BQM)</b>	27		27	
	<b>Plug Color</b>	Black / Black		Blue / White	
	<b>Tube Dimension and (Length)</b>	Minor dimensional changes. See pre and post change comparison			
	<b>Tube Drawing</b>	See pre and post change comparison			
<b>MSL Classification</b>		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:**

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:**

**Method to Identify Change:**

Traceability code

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

**Qualification Plan:**

Please open the attachments included with this PCN labeled as PCN\_#\_Qual\_Plan.

**Revision History:**

**June 23, 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\\_RMES-22JKYM836\\_Qual\\_Plan.pdf](#)

[PCN\\_RMES-22JKYM836\\_Packing\\_Pre\\_and\\_Post\\_Change.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)

AT28HC256-70SU  
AT28HC256-90SU  
AT28HC256-12SU  
AT28HC256E-90SU  
AT28HC256E-12SU  
AT28HC256F-90SU  
AT28C256-15SU  
AT28C256E-15SU  
AT28C256F-15SU  
AT28BV256-20SU  
AT28HC256E-70SU-T  
AT28HC256-70SU-T  
AT28HC256-90SU-T  
AT28HC256-12SU-T  
AT28HC256E-90SU-T  
AT28HC256E-12SU-T  
AT28HC256F-90SU-T  
AT28C256-15SU-T  
AT28C256E-15SU-T  
AT28C256F-15SU-T  
AT28BV256-20SU-T

RMES-22JKYM836 - CCB 4270 Initial Notice: Qualification of GTK as a new assembly site for selected Atmel products available in 28L SOIC (.300in) package.

Affected Catalog Part Numbers(CPN)

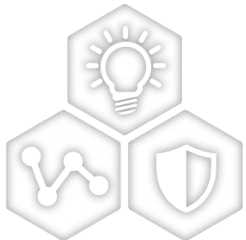
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AT28HC256-12SU  
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AT28C256-15SU  
AT28C256E-15SU  
AT28C256F-15SU  
AT28BV256-20SU  
AT28HC256E-70SU-T  
AT28HC256-70SU-T  
AT28HC256-90SU-T  
AT28HC256-12SU-T  
AT28HC256E-90SU-T  
AT28HC256E-12SU-T  
AT28HC256F-90SU-T  
AT28C256-15SU-T  
AT28C256E-15SU-T  
AT28C256F-15SU-T  
AT28BV256-20SU-T

**CCB 4270**  
**Pre and Post Change Summary**  
**PCN#: RMES-22JKYM836**



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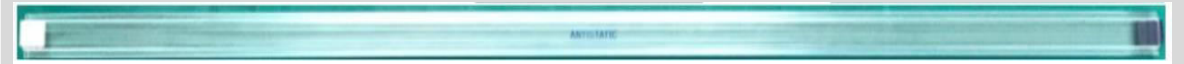
# Packing Information (Tube Comparison)

## PRE-CHANGE (LPI)



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

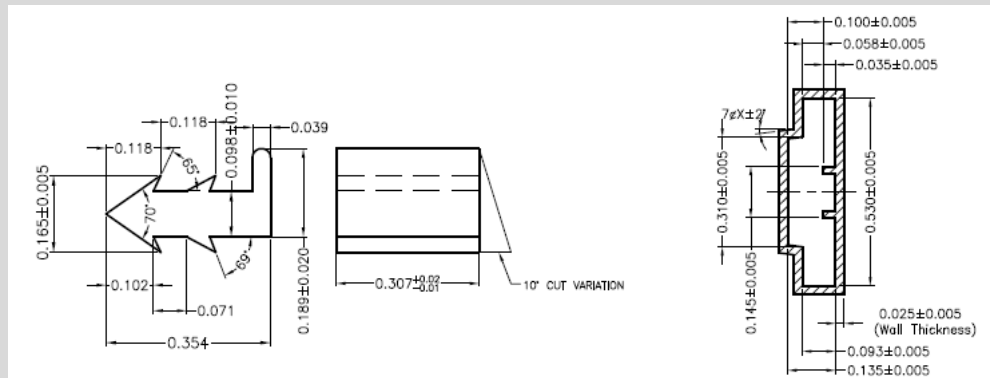
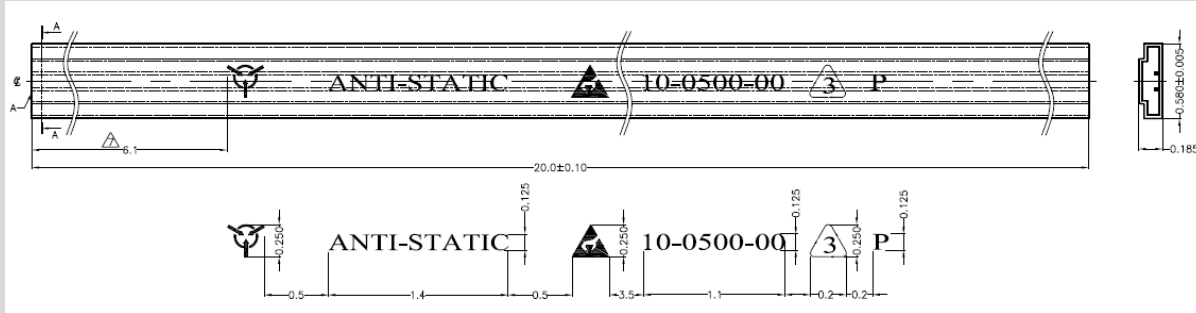
## POST-CHANGE (GTK)



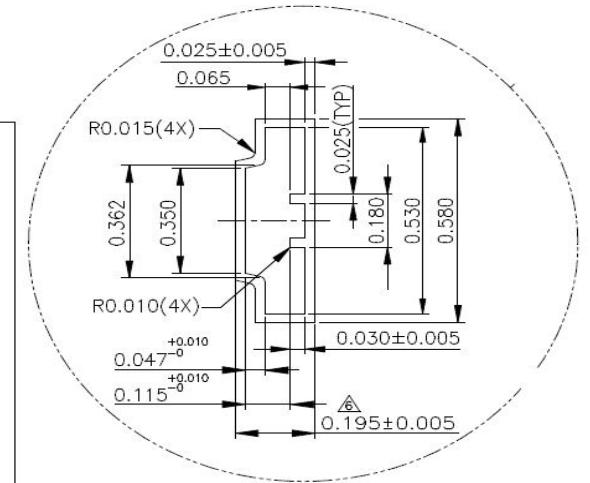
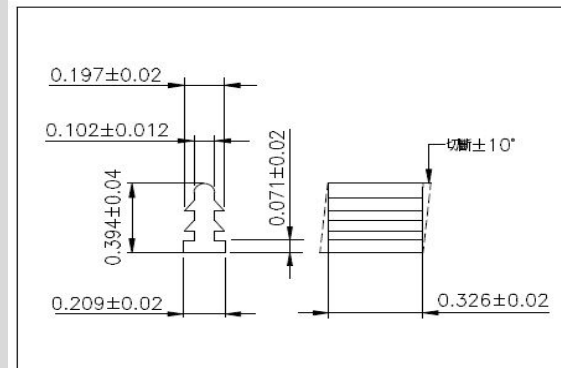
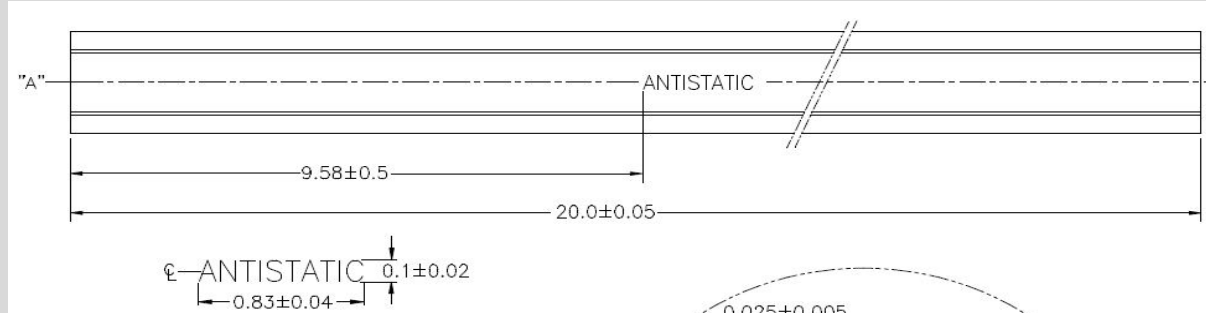
Package	Lead Count	Body Size	Units/Tube	Length (inch)	End Plugs
SOIC	28	300 mils	27	20 +/- 0.05	Blue/White

# Tube Drawing

## PRE-CHANGE (LPI)



## POST-CHANGE (GTK)





# **QUALIFICATION PLAN SUMMARY**

**PCN #: RMES-22JKYM836**

**Date:  
May 28, 2020**

**Qualification of GTK as a new assembly site for selected  
Atmel products available in 28L SOIC (.300in) package.**



**Purpose: Qualification of GTK as a new assembly site for selected Atmel products available in 28L SOIC (.300in) package.**

<u>Misc.</u>	Assembly site	GTK
	MP Code (MPC)	198027N3XC07
	Part Number (CPN)	AT28C256-15SU
	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.	4270
<u>Lead-Frame</u>	Paddle size	190 x 340
	Material	A194
	DAP Surface Prep	DOUBLE RING
	Treatment	None
	Process	Etched
	Lead-lock	No
	Part Number	11-0228W-202
	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	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	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	30 bonds from a min. 5 devices.
Wire Bond Shear - WBS	CDF-AEC-Q100-001	5	0	1	5	0	5	MPHIL	MPHIL	30 bonds from a min. 5 devices.
Physical Dimmensions	Measure per JESD22 B100 and B108	10	0	3	30	0	5	MPHIL	MPHIL	
Lead Integrity	JESD22 B105	5	0	1	5	0 (No lead breakage or cracks)	5	MPHIL	MPHIL	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	
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	Spares should be properly identified. 77 parts from each lot to be used for HAST, uHAST, 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	ATE Test Site	REL Test Site	Special Instructions
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	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	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	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.