



## Product Change Notification / KSRA-24HJEE206

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**Date:**

13-May-2021

**Product Category:**

Simple and Complex Programmable Logic

**PCN Type:**

Manufacturing Change

**Notification Subject:**

CCB 4254 Final Notice: Qualification of GTK as a new assembly site for selected Atmel products available in 24L SPDIP (.300in) package.

**Affected CPNs:**

[KSRA-24HJEE206\\_Affected\\_CPN\\_05132021.pdf](#)

[KSRA-24HJEE206\\_Affected\\_CPN\\_05132021.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 products available in 24L SPDIP (.300in) package.

**Pre Change:**

Assembled at LPI using CRM-1033BF die attach, G600 molding compound material and Double Ring Platinglead frame (DAP) surface prep material.

**Post Change:**

Assembled at GTK using EN-4900GC die attach, G631M molding compound material and Spot Platinglead frame (DAP) surface prep material.

**Pre and Post Change Summary:**

		Pre Change	Post Change
<b>Assembly Site</b>		Lingsen Precision Industries, LTD. (LPI)	Gretek Electronic Inc. (GTK)
<b>Wire material</b>		Au	Au
<b>Die attach material</b>		CRM-1033BF	EN-4900GC
<b>Molding compound material</b>		G600	G631M
<b>Lead frame material</b>		A194	A194
<b>Lead frame die attach paddle (DAP) surface prep material</b>		Double Ring Plating	Spot Plating
		See Pre and Post Change attachment for lead frame comparison	
<b>Packing Media: Tube</b>	<b>Tube Color</b>	Clear	Clear
	<b>Plug Color</b>	Green/White	Blue/White
	<b>Tube Dimensions</b>	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 First Ship Date:**June 11, 2021 (date code: 2124)

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

**Time Table Summary:**

	June 2020					-->	May 2021					June 2021				
	23	24	25	26	27		19	20	21	22	23	24	25	26	27	
Initial PCN Issue Date					X											
Qual Report Availability							X									
Final PCN Issue Date							X									
Estimated Implementation 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 30, 2020:** Issued initial notification.**May 13, 2021:** Issued final notification. Attached the Qualification Report. Corrected the typo on the post change for assembly site from LPI to GTK. Added Lead frame die attach paddle (DAP) surface prep material in the pre and post change. Attached the Lead frame comparison. Provided estimated first ship date to be on June 11, 2021.

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

## **Attachments:**

[PCN\\_KSRA-24HJEE206\\_Qual Report.pdf](#)

[PCN\\_KSRA-24HJEE206\\_Pre and Post Change\\_Summary.pdf](#)

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

## **Terms and Conditions:**

If you wish to receive Microchip PCNs via email please register for our PCN email service at our [PCN home page](#) select register then fill in the required fields. You will find instructions about registering for Microchips PCN email service in the [PCN FAQ](#) section.

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)

ATF750C-7PX

ATF750LVC-15PU

ATF750CL-15PU

ATF750C-10PU

ATF22V10C-7PX

ATF22V10C-10PU

ATF22LV10C-10PU

ATF22V10C-15PU

ATF22V10CQZ-20PU

ATF22LV10CQZ-30PU

KSRA-24HJEE206 - CCB 4254 Final Notice: Qualification of GTK as a new assembly site for selected Atmel products available in 24L SPDIP (.300in) package.

Affected Catalog Part Numbers(CPN)

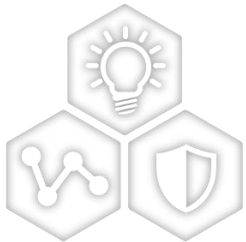
ATF750C-7PX  
ATF750LVC-15PU  
ATF750CL-15PU  
ATF750C-10PU  
ATF22V10C-7PX  
ATF22V10C-10PU  
ATF22LV10C-10PU  
ATF22V10C-15PU  
ATF22V10CQZ-20PU  
ATF22LV10CQZ-30PU

**CCB 4254**  
**Pre and Post Change Summary**  
**PCN#: KSRA-24HJEE206**



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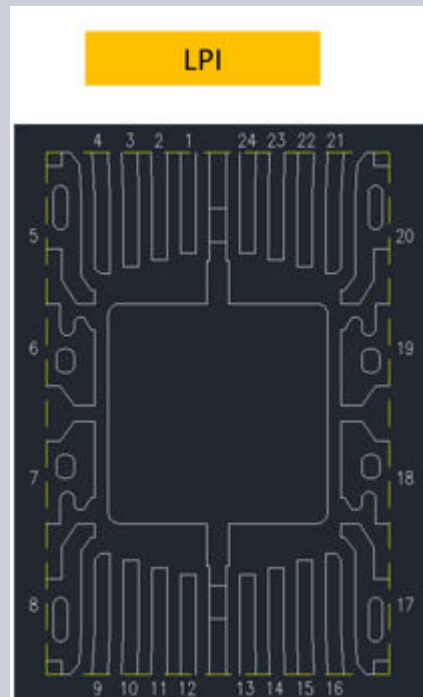
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# Lead frame comparison

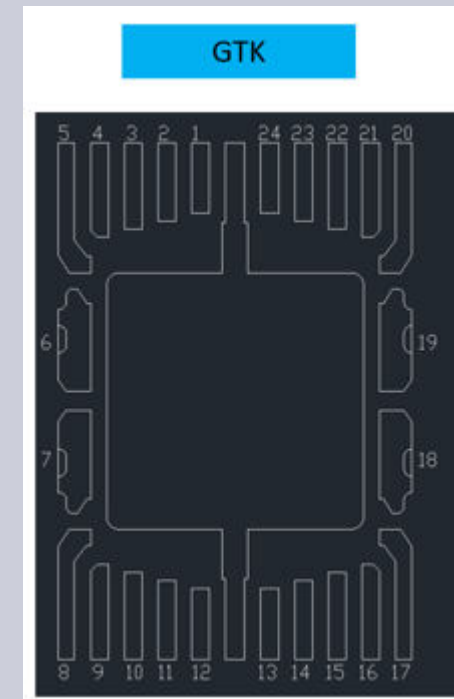
## Pre change (LPI)



Lead frame DAP surface prep

Double ring plating

## Post Change (GTK)



Lead frame DAP surface prep

Spot plating

# Tube Comparison

## PRE-CHANGE (LPI)



Package	Lead Count	Body Size	Units/Tube	Length (inch)	End Plugs
SPDIP	24	300 mils	15	20.00+/- 0.030	Green/White

## POST-CHANGE (GTK)



Package	Lead Count	Body Size	Units/Tube	Length (inch)	End Plugs
SPDIP	24	300 mils	15	24.00+/- 0.025	Blue/White





**QUALIFICATION REPORT SUMMARY**  
RELIABILITY LABORATORY

**PCN#: KSRA-24HJEE206**

**Date**  
**May 3, 2021**

**Qualification of GTK as a new assembly site for selected Atmel  
products available in 24L SPDIP (.300in) package.**



# MICROCHIP

## Package Qualification Report

**Purpose:** Qualification of GTK as a new assembly site for selected Atmel products available in 24L SPDIP (.300in) package.

Misc	Assembly site	GTK
	BD Number	NA
	MP Code (MPC)	197117JDBC02
	Part Number (CPN)	ATF750CL-15PU
	MSL information	NA
	Assembly Shipping Media (T/R, Tube/Tray)	Tube (GTK 41-01002-001)
	Base Quantity Multiple (BQM)	15
	CCB#	4254
	Qual ID and Rev	QTP4383 rev A
	Reliability Site	MPHIL
Lead Frame	Paddle size	160 x160
	Material	A194
	DAP Surface Prep	Spot Plating
	Treatment	None
	Process	Stamped
	Lead-lock	No
	Part Number	11-0124K-002
	Lead Plating	Matte Sn
	Strip Size (mm)	10X1
	Strip Density	10 ea/strip
Bond Wire	Material	Au
Die attach	Part Number	EN-4900GC
	Conductive	Yes
Mold compound	Part Number	G631M
PKG	PKG Type	SPDIP
	Pin/Ball Count	24
	PKG width/size	300 mils



# MICROCHIP

## Package Qualification Report Summary

### Manufacturing Information

Assembly Lot #	Device
GTK-213900004.000	197117JDBC02
GTK-213900005.000	197117JDBC02
GTK-213900006.000	197117JDBC02

### Result

Pass

Fail

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300 mils SPDIP24L (JDB) at GTK Taiwan is qualified and Passed. No anomalies observed after completing several reliability stresses. Post Bond Pull and Ball shear test shows no anomaly on the bonding strength.

# PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
<b>High Temperature Storage Life</b>	<b>Stress Condition: (Standard)</b> Bake 175°C, 504 hrs  System: VOTSCH VT 7012 S2  <b>Electrical Test :25°C</b> System: MAVT_PT	JESD22-A104  45 units of 1 Lot	45(0)  45(0)	0/45	Pass	
<b>Thermal Cycles</b>	<b>Stress Condition: (Standard)</b> -65°C / 150°C, 500cycles  <b>System:</b>  <b>Electrical Test: 25°C</b> System: MAVT_PT  <b>Bond Strength:</b> Wire/Stitch Pull Bond Shear  30 bonds from 5 units / Lot (3 Lots)	JESD22-A104  77 units of 3 Lots	231(0)  231(0)  15(0)	231(0)  15(0)	Pass  Pass	
<b>Unbiased HAST</b>	<b>Stress Condition: (Standard)</b> 130°C / 80°C, 96hours  <b>System:</b>  <b>Electrical Test: 25°C</b> System: MAVT_PT	JESD22-A104  77 units of 3 Lots	231(0)  231(0)	231(0)	Pass	

<b>Biased HAST</b>	<b>Stress Condition: (Standard)</b> 130°C / 80°C, 96hours <b>System:</b>  <b>Electrical Test: 25°C</b> System: MAVT_PT	JESD22- A104  77 units of 3 Lots	231(0)  231(0)	 231(0)	 Pass	
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# PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
<b>Bond Strength Data Assembly</b>	Wire /Stitch Pull	M2011.8 MIL-STD- 883	35(0)	0/35	Pass	
	Bond Shear		35(0)	0/35	Pass	
<b>Package Dimension</b>	30 units from 3 Lots (10 units per lot)	JESD22- B100/B108	30(0)	0/30	Pass	
<b>Standard Pbfree Solderability</b>	Standard Pb-free: Matte tin/ NiPdAu finish, SAC solder, wetting temp 245°C	J-STD002D	22(0)	0/22	Pass	