Product Change Notification / KSRA-24HJEE206

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 Plating lead frame (DAP) surface prep material.

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

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	G631M
Lead frame material		A194	A194
Lead frame die attach paddle (DAP) surface prep material		Double Ring Plating	Spot Plating
		See Pre and Post Change attachment for lead frame comparison	
Packing Media: Tube	**Tube Color**	Clear	Clear
	Plug Color	Green/White	Blue/White
	Tube Dimensions	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			
Workweek	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.

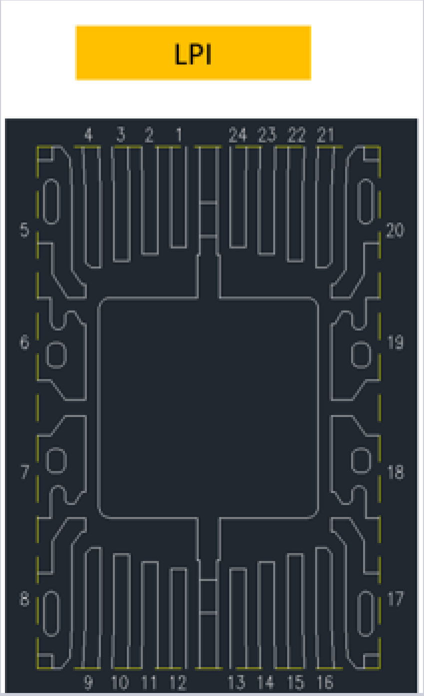
CCB 4254
Pre and Post Change Summary
PCN#: KSRA-24HJEE206

A Leading Provider of Smart, Connected and Secure Embedded Control Solutions

SMART | CONNECTED | SECURE

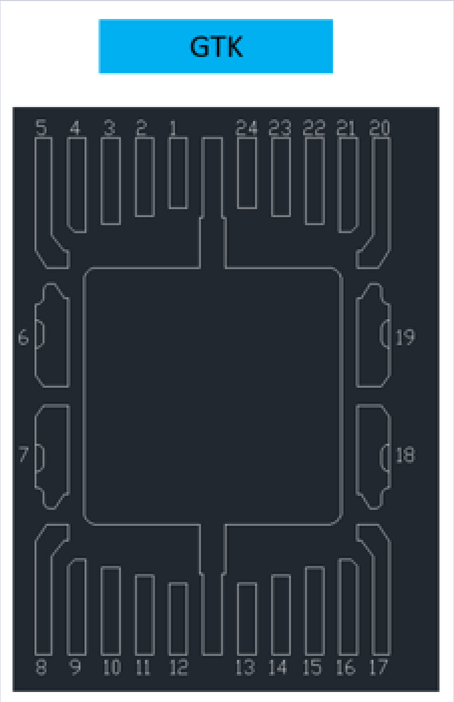
Lead frame comparison

Pre change (LPI)



Lead frame DAP surface prep	Double ring plating

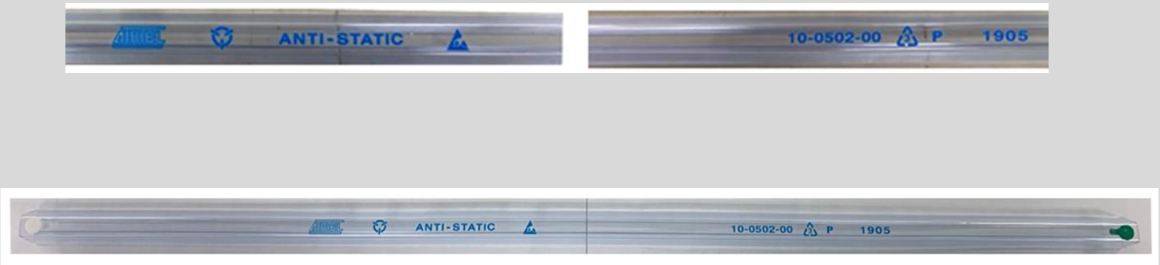
Post Change (GTK)



Lead frame DAP surface prep	Spot plating

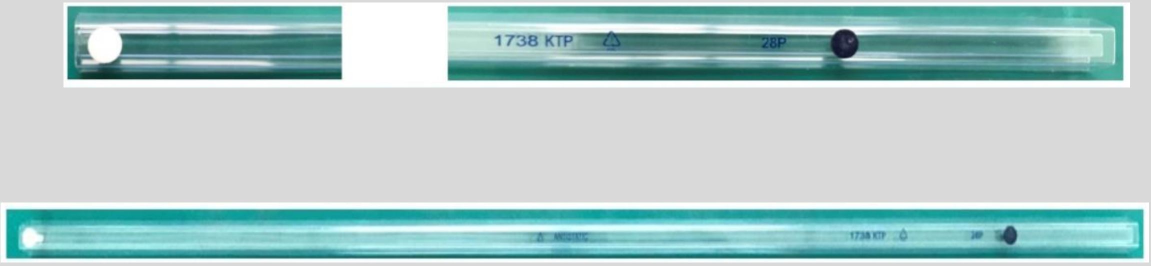
Tube Comparison

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.

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 ☐ ____________________

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
High Temperature Storage Life	**Stress Condition: (Standard)** Bake 175°C, 504 hrs System: VOTSCH VT 7012 S2	JESD22-A104 45 units of 1 Lot	45(0)			
	Electrical Test :25°C System: MAVT_PT		45(0)	0/45	Pass	
Thermal Cycles	**Stress Condition: (Standard)** -65°C / 150°C, 500cycles **System:**	JESD22-A104 77 units of 3 Lots	231(0)			
	Electrical Test: 25°C System: MAVT_PT		2310)	231(0)	Pass	
	Bond Strength: Wire/Stitch Pull Bond Shear 30 bonds from 5 units / Lot (3 Lots)		15(0)	15(0)	Pass	
Unbiased HAST	**Stress Condition: (Standard)** 130°C / 80°C, 96hours **System:**	JESD22-A104 77 units of 3 Lots	231(0)			
	Electrical Test: 25°C System: MAVT_PT		231(0)	231(0)	Pass	

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

PACKAGE QUALIFICATION REPORT

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

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