Product Change Notification / JAON-05VXDE987

Date:

10-May-2021

Product Category:

Simple and Complex Programmable Logic

PCN Type:

Manufacturing Change

Notification Subject:

CCB 4257 Final Notice: Qualification of GTK as a new assembly site for selected ATML ATF22Lxx, ATF22Vxx, and ATF750xx device families available in 24L SOIC (300mils) package.

Affected CPNs:

JAON-05VXDE987_Affected_CPN_05102021.pdf
JAON-05VXDE987_Affected_CPN_05102021.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 ATML ATF22Lxx, ATF22Vxx, and ATF750xx device families available in 24L SOIC (300mils) package.

Pre and Post Change Summary:

	Pre Change	**Post Change**
Assembly Site	Lingsen Precision Industries, LTD. (LPI)	Greatek Electronic Inc. (GTK)

Bond Wire material		Gold (Au)	Gold (Au)
Die attach material		CRM-1033BF	EN-4900GC
Molding compound material		G600	G600
Lead frame material		A194	A194
Paddle Size		145 x 158 mils	190 x 220 mils
MSL Classification		MSL 2	MSL 3
Packing Media: Tube	**Tube Color**	Clear	Clear
	Plug Color	Black/Black	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 10, 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		18	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 9, 2020: Issued initial notification.

May 10, 2021: Issued final notification. Attached the Qualification Report. Revised the affected parts list. Provided estimated first ship date to be on June 10, 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_JAON-05VXDE987_Pre and Post Change_Summary.pdf
PCN_JAON-05VXDE987_Qual_Report.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-7SX
ATF750LVC-15SU
ATF750CL-15SU
ATF750C-10SU
ATF750C-10SU-T
ATF22V10C-7SX
ATF22V10C-10SU
ATF22LV10C-10SU
ATF22V10C-10SU-T
ATF22V10CQZ-20SU
ATF22LV10CQZ-30SU
ATF22V10CQZ-20SU-T

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Affected Catalog Part Numbers(CPN)

ATF750C-7SX
ATF750LVC-15SU
ATF750CL-15SU
ATF750C-10SU
ATF750C-10SU-T
ATF22V10C-7SX
ATF22V10C-10SU
ATF22LV10C-10SU
ATF22V10C-10SU-T
ATF22V10CQZ-20SU
ATF22LV10CQZ-30SU
ATF22V10CQZ-20SU-T

CCB 4257

Pre and Post Change Summary

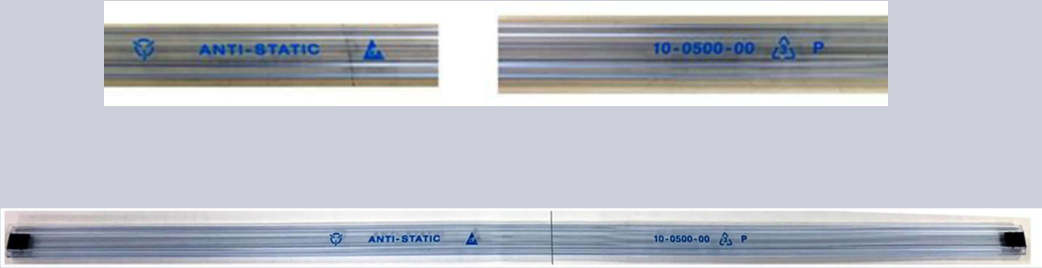
PCN# JAON-05VXDE987

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

SMART | CONNECTED | SECURE

Pre and Post Change – Tube Packing Media

Pre-Change / LPI



Package	Lead Count	Body Size	Units/ Tube	Length (inch)	End Plugs
SOIC	24	300 mils	31	20+/-0.10	Black/Black

Post Change / GTK

Package	Lead Count	Body Size	Units /Tube	Length (inch)	End Plugs
SOIC	24	300 mils	31	20 +/- 0.05	Blue/White

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QUALIFICATION REPORT SUMMARY

RELIABILITY LABORATORY

PCN#: JAON-05VXDE987

Date
April 23, 2021

Qualification of GTK as a new assembly site for selected ATML ATF22Lxx, ATF22Vxx, and ATF750xx device families available in 24L SOIC (300mils) package.

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Package Qualification Report

Purpose: Qualification of GTK as a new assembly site for selected ATML ATF22Lxx, ATF22Vxx, and ATF750xx device families available in 24L SOIC (300mils) package.

Misc.	Assembly site	GTK
	MP Code (MPC)	197117K3XC02
	Part Number (CPN)	ATF750CL-15SU
	MSL information	MSL 3 / 260
	Assembly Shipping Media (T/R,Tube/Tray)	Tube
	Base Quantity Multiple(BQM)	31units/tube
	Reliability Site	MPHIL
	Qualification ID	QTP4358 Rev. A
	CCB No	4257
Lead-Frame	Paddle size	190 x 220
	Material	A194
	DAP Surface Prep	DOUBLE RING
	Treatment	None
	Process	Stamped
	Lead-lock	No
	Part Number	11-0224W-007
	Lead Plating	Matte Sn
	Strip Size (mm)	4X10
	Strip Density	40
Bond Wire	Material	Au
Die Attach	Part Number	EN-4900GC
	Conductive	Yes
MC	Part Number	G600
PKG	PKG Type	SOIC
	Pin/Ball Count	24
	PKG width/size	300mils

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Package Qualification Report

Manufacturing Information

Assembly Lot #	Device Type
GTK-213900001.000	197117K3XC02
GTK-213900002.000	197117K3XC02
GTK-213900003.000	197117K3XC02

Result ☒ Pass ☐ Fail ☐ ____________________

300 mils SOIC24L (K3X) at GTK is qualified the Moisture/ Reflow Sensitivity Classification Level 3 at 260°C reflow temperature per IPC/JEDEC J-STD-020E standard. No delamination was observed on all the units.

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS	Result	Remarks
Precondition Prior Perform Reliability Tests (At MSL Level 3)	**Electrical Test :** 25°C System: MAV_PT	JESD22-A113 231 units of 3 Lots	885(0)	0/885	Pass	
	Bake 150°C, 24 hrs		885(0			
	30°C/60%RH Moisture Soak 192 hrs. System: Climats Excal 5423-HE	IPC/JEDEC J-STD-020E	885(0)			
	3x Convection-Reflow 260°C max System: Mancorp CR.5000F		885(0)	0/885	Pass	
	Electrical Test : 25°C System: MAV_PT		885(0)	0/885	Pass	

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: 85°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, 85°C System: MAVT_PT		231(0)	231(0)	Pass	
Biased HAST	**Stress Condition: (Standard)** 130°C / 80°C, 96hours **System:**	JESD22-A104 77 units of 3 Lots	231(0)			
	Electrical Test: 25°C, 85°C System: MAVT_PT		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	