



Product Change Notification: ALAN-05MUPB051

Date:

02-Sep-2024

Product Category:

16-Bit - Microcontrollers And Digital Signal Controllers, 8-Bit Microcontrollers

Notification Subject:

CCB 6850 Final Notice: Qualification of 4900F as new die-attach material and G631H as new mold compound material for selected dsPIC33FJ128xx, dsPIC33FJ256xx, dsPIC33FJ32Gxx, dsPIC33FJ64xx, MTR1202xx, PIC18F9xx, PIC24FJ128Gxx, PIC24FJ192Gxx, PIC24FJ256Gxx, PIC24FJ64Gxx, PIC24FJ96Gxx, PIC24HJ128GPxx, PIC24HJ256GPxx, and PIC24HJ64GPxx device families available in 100L TQFP (12x12x1mm) package.

Affected CPNs:

[ALAN-05MUPB051_Affected_CPN_09022024.pdf](#)
[ALAN-05MUPB051_Affected_CPN_09022024.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 4900F as new die-attach material and G631H as new mold compound material for selected dsPIC33FJ128xx, dsPIC33FJ256xx, dsPIC33FJ32Gxx, dsPIC33FJ64xx, MTR1202xx, PIC18F9xx, PIC24FJ128Gxx, PIC24FJ192Gxx, PIC24FJ256Gxx, PIC24FJ64Gxx, PIC24FJ96Gxx, PIC24HJ128GPxx, PIC24HJ256GPxx, and PIC24HJ64GPxx device families available in 100L TQFP (12x12x1mm) package.

Pre and Post Change Summary:

	Pre Change	Post Change
Assembly Site	ASE Inc. (ASE)	ASE Inc. (ASE)
Wire Material	Au	Au
Die Attach Material	2288A	4900F
Molding Compound Material	9200THF	G631H
Lead-Frame Material	C7025	C7025
DAP Surface Prep	Ring plating	Double Ring plating

Impacts to Data Sheet:None

Change Impact:None

Reason for Change:To improve manufacturability by qualifying 4900F as new die-attach material and G631H as new mold compound material.

Change Implementation Status:In Progress

Estimated First Ship Date:September 17, 2024 (date code: 2438)

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

Time Table Summary:

	March 2024					>	September 2024				
Workweek	09	10	11	12	13		36	37	38	39	40
Initial PCN Issue Date		X									
Qual Report Availability							X				
Final PCN Issue 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: March 07, 2024: Issued initial notification.

September 02, 2024: Issued final notification. Attached the Qualification Report. Provided estimated first ship date to be on September 17, 2024.

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

Attachments:

[PCN_ALAN-05MUPB051_Pre and Post Change_Summary.pdf](#)

[PCN_ALAN-05MUPB051_Qual_Report.pdf](#)

Please contact your local **Microchip sales office** with questions or concerns regarding this notification.

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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.

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Affected Catalog Part Numbers (CPN)

PIC18F97J60-I/PT
PIC18F97J60T-I/PT
PIC18F96J60-I/PT
PIC24FJ256GB110-I/PTREL
PIC24FJ256GB110T-I/PT
PIC24FJ64GB110-I/PT
PIC24FJ128GB110-I/PT
PIC24FJ256GA110T-I/PT
PIC24FJ192GB110-I/PT
PIC24HJ64GP510A-I/PT
PIC24HJ64GP210A-I/PT
PIC24HJ128GP310AT-I/PT
PIC24HJ128GP510AT-I/PT
DSPIC33FJ128MC510A-I/PT
DSPIC33FJ128MC710A-I/PT
PIC24HJ64GP210AT-I/PT
PIC24HJ64GP510AT-I/PT
DSPIC33FJ128MC510AT-I/PT
PIC24HJ128GP210A-I/PT
PIC24HJ128GP310A-I/PT
PIC24HJ128GP510A-I/PT
DSPIC33FJ64GP310A-I/PT
DSPIC33FJ64GP710A-I/PT
DSPIC33FJ128GP310A-I/PT
DSPIC33FJ128GP710A-I/PT
DSPIC33FJ64MC510A-I/PT
DSPIC33FJ128GP710A-E/PT
DSPIC33FJ64MC710A-E/PT
PIC24FJ256GB110-I/PT
PIC24FJ128GA010-I/PT
PIC24FJ192GA110-I/PT
PIC24FJ256GA110-I/PT
PIC24FJ128GA010T-I/PT
PIC24FJ256GA110-E/PT
PIC24FJ96GA010-I/PT
PIC24FJ64GA010-I/PT
PIC24FJ128GA110-E/PT
PIC24FJ128GA110-I/PT
DSPIC33FJ64GP710AT-I/PT
DSPIC33FJ128GP310AT-I/PT
DSPIC33FJ128GP710AT-I/PT
PIC24HJ128GP510A-I/PT042
PIC24HJ128GP510A-E/PT
PIC24HJ64GP210A-E/PT
PIC24HJ64GP510A-E/PT
DSPIC33FJ128GP310A-E/PT

ALAN-05MUPB051 - CCB 6850 Final Notice: Qualification of 4900F as new die-attach material and G631H as new mold compound material for selected dsPIC33FJ128xx, dsPIC33FJ256xx, dsPIC33FJ32Gxx, dsPIC33FJ64xx, MTR1202xx, PIC18F9xx, PIC24FJ128Gxx, PIC24FJ192Gxx, PIC24FJ256Gxx, PIC24FJ64Gxx, PIC24FJ96Gxx, PIC24HJ128GPxx, PIC24HJ256GPxx, and PIC24HJ64GPxx device families available in 100L TQFP (12x12x1mm) package.

PIC24HJ256GP210A-E/PT
DSPIC33FJ128MC510-I/PTC22
PIC24HJ256GP610A-E/PT
DSPIC33FJ128MC510A-I/PTC31
PIC24HJ256GP610T-I/PT
DSPIC33FJ256GP710T-I/PT
PIC24HJ256GP610AT-I/PT
DSPIC33FJ256GP710AT-I/PT
DSPIC33FJ256MC510AT-I/PT
DSPIC33FJ256GP710A-E/PT
DSPIC33FJ256MC510A-E/PT
DSPIC33FJ256MC710A-E/PT
PIC24HJ256GP210A-I/PT
DSPIC33FJ256MC710AT-I/PT
DSPIC33FJ256MC710A-I/PT
PIC24HJ64GP210-I/PT
PIC24HJ64GP510-I/PT
PIC24HJ128GP210-I/PT
PIC24HJ128GP310-I/PT
DSPIC33FJ32GS610-50I/PT
PIC24HJ256GP610A-I/PT
DSPIC33FJ256GP510A-I/PT
DSPIC33FJ256GP710A-I/PT
DSPIC33FJ256MC510A-I/PT
DSPIC33FJ64GS610-50I/PT
PIC24HJ128GP510-I/PT
PIC24HJ256GP210-I/PT
DSPIC33FJ256MC510T-I/PT
DSPIC33FJ256MC710T-I/PT
DSPIC33FJ256GP710AT-E/PT
DSPIC33FJ256MC710AT-E/PT
PIC24HJ64GP510T-I/PT
PIC24HJ256GP210T-I/PT
DSPIC33FJ32GS610-E/PT
DSPIC33FJ64GS610-E/PT
DSPIC33FJ128GP710-I/PT
DSPIC33FJ256GP510-I/PT
DSPIC33FJ64GP710-I/PT
PIC24HJ256GP610-I/PT
DSPIC33FJ64GP310-I/PT
DSPIC33FJ128MC510-I/PT
DSPIC33FJ128MC710-I/PT
DSPIC33FJ256MC510-I/PT
DSPIC33FJ256MC710-I/PT
DSPIC33FJ128GP310-I/PT
DSPIC33FJ256GP710-I/PT
DSPIC33FJ64MC510-I/PT
DSPIC33FJ64GS610-I/PT

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DSPIC33FJ64MC710-I/PT

PIC24FJ64GA010T-I/PT

DSPIC33FJ256GP710T-I/PTB21

DSPIC33FJ128MC510AT-I/PTC30

PIC24HJ256GP610A-H/PT

DSPIC33FJ256GP710A-H/PT

DSPIC33FJ256MC710A-H/PT

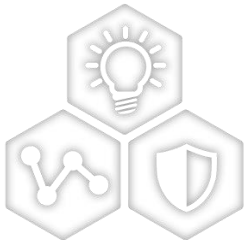
CCB 6850

Pre and Post Change Summary

PCN# ALAN-05MUPB051



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



SMART | CONNECTED | SECURE

Pre and Post Change Summary

Pre Change



Die Attach Material	2288A
Molding Compound Material	9200THF
DAP Surface Prep	Ring plating

Post Change



Die Attach Material	4900F
Molding Compound Material	G631H
DAP Surface Prep	Double Ring plating

*Not fit to scale



MICROCHIP

QUALIFICATION REPORT SUMMARY
RELIABILITY LABORATORY

PCN #: ALAN-05MUPB051

Date:
August 8, 2024

Qualification of 4900F as new die-attach material and G631H as new mold compound material for selected dsPIC33FJ128xx, dsPIC33FJ256xx, dsPIC33FJ32Gxx, dsPIC33FJ64xx, MTR1202xx, PIC18F9xx, PIC24FJ128Gxx, PIC24FJ192Gxx, PIC24FJ256Gxx, PIC24FJ64Gxx, PIC24FJ96Gxx, PIC24HJ128GPxx, PIC24HJ256GPxx, and PIC24HJ64GPxx device families available in 100L TQFP (12x12x1mm) package.



MICROCHIP PACKAGE QUALIFICATION REPORT

Purpose Qualification of 4900F as new die-attach material and G631H as new mold compound material for selected dsPIC33FJ128xx, dsPIC33FJ256xx, dsPIC33FJ32Gxx, dsPIC33FJ64xx, MTR1202xx, PIC18F9xx, PIC24FJ128Gxx, PIC24FJ192Gxx, PIC24FJ256Gxx, PIC24FJ64Gxx, PIC24FJ96Gxx, PIC24HJ128GPxx, PIC24HJ256GPxx, and PIC24HJ64GPxx device families available in 100L TQFP (12x12x1mm) package.

CN E000222023
QUAL ID R2400700 Rev. A
MP CODE YGAG17V7XBEF
Part No. DSPIC33FJ128GP710-I/PT
Bonding No. AAH@A02059A068-0
CCB No. 6850

Package

Type 100L TQFP
Package size 12 x 12 mm

Lead Frame

Paddle size 250 x 250 mils
Material C7025
Surface Double Ring Plating
Process Etched
Lead Lock No
Part Number A02059A
Treatment Non-Rough

Material

Epoxy 4900F
Wire Au
Mold Compound G631H
Plating Composition Matte Sn



MICROCHIP PACKAGE QUALIFICATION REPORT

Manufacturing Information

Assembly Lot No.	Wafer Lot No.	Date Code
ASE-245200002.000	TC11924438005.100	24136E2
ASE-245200003.000	TC11924438005.100	24136E5
ASE-245200004.000	TC11924438005.100	24136E6

Result Pass Fail _____

100L TQFP (12x12 mm) assembled by ASE pass reliability test per QCI-39000. This package was qualified the Moisture/Reflow Sensitivity Classification Level 3 at 260°C reflow temperature per IPC/JEDEC J-STD-020E standard.

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS	Result	Remarks
<u>Precondition</u> <u>Prior Perform</u> <u>Reliability Tests</u> (At MSL Level 3)	Electrical Test: +25°C and 85°C System: J750 Bake 150°C, 24 hrs. System: CHINEE 30°C/60%RH Moisture Soak 192 hrs. System: TABAI ESPEC Model PR-3SPH 3x Convection-Reflow 265°C max System: Vitronics Soltec MR1243	JESD22- A113 JIP/ IPC/JEDEC J-STD-020E	693(0)	0/693 693 693 693		Good Devices
	Electrical Test: +25°C and 85°C System: J750		693(0)	0/693	Pass	

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
Temp Cycle	Stress Condition: -65°C to +150°C, 500 Cycles System: TABAI ESPEC TSA-70H	JESD22- A104		0/231		Parts had been pre-conditioned at 260°C 77 units / lot
	Electrical Test: + 85°C System: J750		231(0)	0/231	Pass	
	Bond Strength: Wire Pull (>3.00 grams)		15(0)	0/15	Pass	
UNBIASED-HAST	Stress Condition: +130°C/85%RH, 96 hrs. System: HAST 6000X	JESD22- A118		0/231		Parts had been pre-conditioned at 260°C 77 units / lot
	Electrical Test: +25°C System: J750		231(0)	0/231	Pass	
HAST	Stress Condition: +130°C/85%RH, 96 hrs. Bias Volt: 2.5 Volts System: HAST 6000X	JESD22- A110		0/231		Parts had been pre-conditioned at 260°C 77 units / lot
	Electrical Test: +25°C and 85°C System: J750		231(0)	0/231	Pass	

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
High Temperature Storage Life	Stress Condition: Bake 175°C, 504 hrs System: TPS Bake Oven	JESD22- A103		0/45		45 units
	Electrical Test: +25°C and 85°C System: J750		45(0)	0/45	Pass	
Solderability Temp 245°C	Steam Aging: Temp 93°C,8Hrs System: SAS-3000 Solder Dipping:Solder Temp.245°C Solder material:Pb Free Sn 95.5Ag3.9 Cu0.6 System: ERSA RA 2200D Visual Inspection: External Visual Inspection	J-STD-002	22(0)	0/22		
				0/22		
				0/22	Pass	
Wire sweep	Wire sweep Inspection 10 Wires / lot	-	30(0) Wires	0/30	Pass	
Physical Dimensions	Physical Dimension, 10 units / 1 lot	JESD22- B100/B108	30(0) Units	0/30	Pass	
Bond Strength Data Assembly	Wire Pull (>3.00 grams)	Mil. Std. 883-2011	30(0) Wires	0/30	Pass	
	Bond Shear (>15.00 grams)	CDF-AEC- Q100-001	30(0) bonds	0/30	Pass	