



Product Change Notification: MFOL-08PRDK601

Date:

16-May-2025

Product Category:

Wireless IC

Notification Subject:

CCB 7597 Initial Notice: Qualification of MTAI as a new assembly site for WINCS02IC-TRAY, WINCS02IC, WILCS02IC-I/ZZX, WILCS02ICT-I/ZZX, WINCS02IC-I1/ZZX, WINCS02ICT-I1/ZZX, WINCS02IC-I/ZZX, WINCS02ICT-I/ZZX, WINCS02IC-V/ZZX, WINCS02ICT-V/ZZX, WILCS02IC-V/ZZX, and WILCS02ICT-V/ZZX catalog part numbers (CPN) available in 48L VFQN (7x7x0.9mm) package.

Affected CPNs:

MFOL-08PRDK601_Affected_CPN_05162025.pdf

MFOL-08PRDK601_Affected_CPN_05162025.csv

PCN Status: Initial 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 MTAI as a new assembly site for WINCS02IC-TRAY, WINCS02IC, WILCS02IC-I/ZZX, WILCS02ICT-I/ZZX, WINCS02IC-I1/ZZX, WINCS02ICT-I1/ZZX, WINCS02IC-I/ZZX, WINCS02ICT-I/ZZX, WINCS02IC-V/ZZX, WINCS02ICT-V/ZZX, WILCS02IC-V/ZZX, and WILCS02ICT-V/ZZX catalog part numbers (CPN) available in 48L VFQN (7x7x0.9mm) package.

Pre and Post Summary Changes:

	Pre Change	Post Change
Assembly Site	ASE Group Chung-Li (ASCL)	Microchip Technology Thailand (HQ) (MTAI)

Wire Material	CuPdAu		CuPdAu	
Die Attach Material	EN-4900F	QMI536	8008MD	8006NS
Molding Compound Material	G700LA		G700LTD	
Lead-Frame Material	C194		A194	
Lead-Frame Design	See Pre and Post change summary for comparison.			

*Note: C194, A194 or CDA194 Lead frame material are the same, it is just a MCHP internal labelling difference.

Impacts to Datasheet: None

Change Impact: None

Reason for Change: To improve on-time delivery performance by qualifying MTAI as a new assembly site.

Change Implementation Status: In Progress

Estimated Qualification Completion Date: September 2025

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.

Timetable Summary:

	May 2025					>	September 2025				
Work Week	18	19	20	21	22		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 Plan: Please open the attachments included with this PCN labeled as PCN_#_Qual_Plan.

Revision History: May 16, 2025: Issued initial notification.

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

Attachments:

PCN_MFOL-08PRDK601_Pre and Post Change Summary.pdf
PCN_MFOL-08PRDK601_Qualification Plan.pdf

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

Terms and Conditions:

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Affected Catalog Part Numbers (CPN)

WINCS02IC-TRAY

WINCS02IC

WILCS02IC-I/ZZX

WILCS02ICT-I/ZZX

WINCS02IC-I1/ZZX

WINCS02ICT-I1/ZZX

WINCS02IC-I/ZZX

WINCS02ICT-I/ZZX

WINCS02IC-V/ZZX

WINCS02ICT-V/ZZX

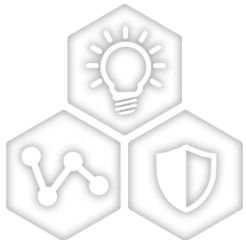
WILCS02IC-V/ZZX

WILCS02ICT-V/ZZX

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Pre and Post Change Summary
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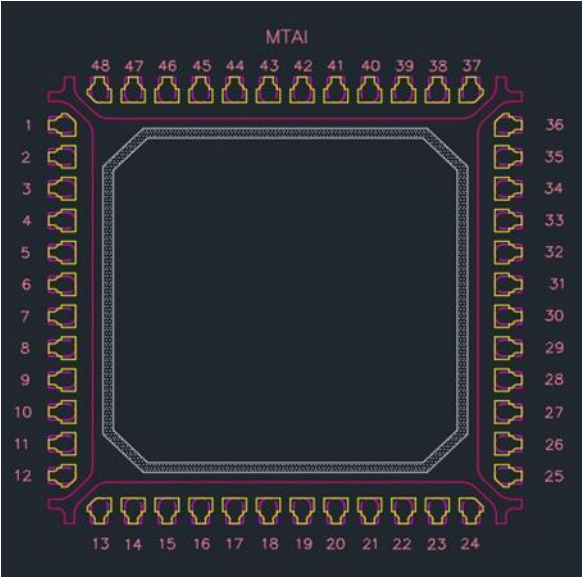


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Pre and Post Change Summary – Lead frame Design

ASCL	MTAI				
 The ASCL lead frame diagram shows a square package with a central square cavity. The top edge has pins numbered 48 to 37, the bottom edge 13 to 24, the left edge 1 to 12, and the right edge 36 to 25. The frame is outlined in yellow and pink.	 The MTAI lead frame diagram shows a square package with a central square cavity. The top edge has pins numbered 48 to 37, the bottom edge 13 to 24, the left edge 1 to 12, and the right edge 36 to 25. The frame is outlined in yellow and pink.				
Note: Not to scale <table><tr><td>Lead-frame Material</td><td>C194</td></tr></table>	Lead-frame Material	C194	Note: Not to scale <table><tr><td>Lead-frame Material</td><td>A194</td></tr></table>	Lead-frame Material	A194
Lead-frame Material	C194				
Lead-frame Material	A194				

Note 1: C194, A194 or CDA194 Lead frame material are the same, it is just a MCHP internal labelling difference.



QUALIFICATION PLAN SUMMARY

PCN #: MFOL-08PRDK601

**Date:
May 06, 2025**

Qualification of MTAI as a new assembly site for WINCS02IC-TRAY, WINCS02IC, WILCS02IC-I/ZZX, WILCS02ICT-I/ZZX, WINCS02IC-I1/ZZX, WINCS02ICT-I1/ZZX, WINCS02IC-I/ZZX, WINCS02ICT-I/ZZX, WINCS02IC-V/ZZX, WINCS02ICT-V/ZZX, WILCS02IC-V/ZZX, and WILCS02ICT-V/ZZX catalog part numbers (CPN) available in 48L VFQN (7x7x0.9mm) package. This is a Grade 2 Q006 qualification.

Purpose: Qualification of MTAI as a new assembly site for WINCS02IC-TRAY, WINCS02IC, WILCS02IC-I/ZZX, WILCS02ICT-I/ZZX, WINCS02IC-I1/ZZX, WINCS02ICT-I1/ZZX, WINCS02IC-I/ZZX, WINCS02ICT-I/ZZX, WINCS02IC-V/ZZX, WINCS02ICT-V/ZZX, WILCS02IC-V/ZZX, and WILCS02ICT-V/ZZX catalog part numbers (CPN) available in 48L VFQN (7x7x0.9mm) package. This is a Grade 2 Q006 qualification.

CCB No.: 7597

<u>Misc.</u>	Assembly site	MTAI
	BD Number	BD-002862 / 03
	MP Code (MPC)	3600Z9ZZXA00
	Part Number (CPN)	WINCS02IC
	MSL information	MSL-1
	Assembly Shipping Media (T/R, Tube/Tray)	Tray
	Base Quantity Multiple (BQM)	416
	Reliability Site	MPHIL
<u>Lead-Frame</u>	Paddle size	224 x 224
	Material	A194
	DAP Surface Prep	Ag ring plate
	Treatment	Roughened
	Process	Etched
	Lead-lock	No
	Part Number	10104817
	Lead Plating	Matte tin
<u>Bond Wire</u>	Material	CuPdAu
<u>Die Attach</u>	Part Number	8008MD 8006NS
	Conductive	Yes (8008MD) No (8006NS)
<u>MC</u>	Part Number	G700LTD
<u>PKG</u>	Package Type	VQFN
	Pin/Ball Count	48
	PKG width/size	7x7

Test Name	Conditions	Reliability Stress Read Point Grade 2: -40°C to +105°C (MCHP E Temp)	Pre & Post Reliability Stress Test Temperature Grade 2: -40°C to +105°C (MCHP E Temp)	Sample Size	Min. Qty of Spares per Lot (should be properly marked)	Qty of Lots	Total Units	Fail Accept Qty	Est. Dur. Days	Special Instructions
Standard Pb-free Solderability	J-STD-002D ; Perform 8 hours of 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	Standard Pb-free solderability is the requirement. * Additional Requirement: If burn-in screening is normally performed on the device before shipment, samples for SD must first undergo burn-in or equivalent high temperature baking.
Wire Bond Pull - WBP	Mil. Std. 883-2011			5	0	1	5	0 fails after TC	5	30 bonds from a min. 5 devices.
Wire Bond Shear - WBS	CDF-AEC-Q100-001			5	0	1	5	0	5	30 bonds from a min. 5 devices.
Physical Dimensions	Measure per JESD22 B100 and B108			10	0	3	30	0	5	
External Visual	Mil. Std. 883-2009/2010			All devices prior to submission for qualification testing	0	3	ALL	0	5	
HTSL (High Temp Storage Life)	JESD22-A103 +150°C 2x Stress	1st Readpoint: Grade 2: 500 hrs (150°C) 2nd Readpoint: Grade 2: 1000 hrs (150°C)	Grade 2: +25°C, +105°C	45	5	3	150	0	21 – 167	Spares should be properly identified.
Preconditioning - Required for surface mount devices	J-STD-020 JESD22-A113 +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. MSL1/260		Grade 2: +25°C, +105°C	231	15	3	738	0	15	Spares should be properly identified. 77 parts from each lot to be used for HAST, uHAST, Temp Cycle test.

Test Name	Conditions	Reliability Stress Read Point Grade 2: -40°C to +105°C (MCHP E Temp)	Pre & Post Reliability Stress Test Temperature Grade 2: -40°C to +105°C (MCHP E Temp)	Sample Size	Min. Qty of Spares per Lot (should be properly marked)	Qty of Lots	Total Units	Fail Accept Qty	Est. Dur. Days	Special Instructions
Hast	'JESD22-A101 or A110 +130°C/85%RH for 96 hrs 2x Stress	1st Readpoint: Grade 2: 96 hrs (+130°C/85%RH) 2nd Readpoint: Grade 2: 192 hrs (+130°C/85%RH)	Grade 2: +25°C, +105°C	77	5	3	246	0	10 - 22	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.
UHAST	'JESD22-A102, A118, or A101 +130°C/85% RH for 96 hrs	Grade 2: 96 hrs (+130°C/85% RH)	Grade 2: +25°C	77	5	3	246	0	10	Spares should be properly identified. Use the parts which have gone through Pre- conditioning.
Temp Cycle	'JESD22-A104 and Appendix 3 -55°C to +125°C, 2x Stress	1st Readpoint: Grade 2: 1000 cycles (-55°C to +125°C) 2nd Readpoint: Grade 2: 2000 cycles (-55°C to +125°C)	Grade 2: +25°C +105°C	77	5	3	246	0	15 - 120	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.