



Product Change Notification / KSRA-13AKNI696

Date:

20-Nov-2020

Product Category:

8-bit Microcontrollers, Capacitive Touch Sensors, Touch Controllers

PCN Type:

Manufacturing Change

Notification Subject:

CCB 4440 and 4440.001 Initial Notice: Qualification of MMT as an additional assembly site for selected MITCH112, MITCH180, PIC10xxxx and PIC12xxxx products available in 8L DFN (3x3x0.9mm and 2x3x0.9mm) package.

Affected CPNs:

[KSRA-13AKNI696_Affected_CPN_11202020.pdf](#)

[KSRA-13AKNI696_Affected_CPN_11202020.csv](#)

Notification Text:

PCN Status:

Initial notification

PCN Type: Manufacturing Change

Microchip Parts Affected: Please open one of the icons found in the Affected CPNs section above.

NOTE: For your convenience Microchip includes identical files in two formats (.pdf and .xls).

Description of Change: Qualification of MMT as an additional assembly site for selected MITCH112, MITCH180, PIC10xxxx and PIC12xxxx products available in 8L DFN (3x3x0.9mm and 2x3x0.9mm) package.

Pre Change:

Assembled at NSEB using gold (Au) or palladium coated copper wire with gold flash (CuPdAu) bondwire, CRM1076DJ or 8600 die attach , G770HCD and G700LTD mold compound, EFTEC-64T or C194 lead frame material.

Post Change:

Assembled at NSEB using gold (Au) or palladium coated copper wire with gold flash (CuPdAu) bondwire, CRM1076DJ or 8600 die attach , G770HCD and G700LTD mold compound, EFTEC-64T or C194 lead frame material.

Assembled at MMT using palladium coated copper wire with gold flash (CuPdAu) bondwire, 3280 die attach, G700LTD mold compound and C194 lead frame material.

Pre and Post Change Summary:

	Pre Change		Post Change		
Assembly Site	UTAC Thai Limited LTD. (NSEB)		UTAC Thai Limited LTD. (NSEB)	Microchip Technology Thailand (Branch) / MMT	
Wire material	Au	CuPdAu	Au	CuPdAu	CuPdAu
Die attach material	CRM1076DJ	8600	CRM1076DJ	8600	3280
Molding compound material	G770HCD	G700LTD	G770HCD	G700LTD	G700LTD
Lead frame material	EFTEC-64T	C194	EFTEC-64T	C194	C194
Lead frame design	See attached Pre and Post Change				

Impacts to Data Sheet: None

Change Impact:None

Reason for Change:To improve on-time delivery performance by qualifying MMT as an additional assembly site.

Change Implementation Status:In Progress

Estimated Qualification Completion Date:January 2021

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.

Time Table Summary:

	November 2020					→	January 2021				
Workweek	45	46	47	48	49		01	02	03	04	05
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: November 20, 2020: Issued initial notification.

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-13AKNI696_Pre and Post Change Summary.pdf](#)

[PCN_KSRA-13AKNI696_Qual_Plan.pdf](#)

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

Terms and Conditions:

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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)

PIC12F1822-E/MF
PIC12F1822-I/MF043
PIC12F1822-I/MF
PIC12F1822T-I/MF
PIC12F1822T-E/MF
PIC12LF1822-E/MF
PIC12LF1822-I/MF
PIC12LF1822T-I/MF
PIC12F1840-E/MF
MTCH810-I/MF
PIC12F1840-I/MF
PIC12F1840-H/MF
MTCH810T-I/MF
PIC12F1840T-I/MF
PIC12F1840T-E/MF
PIC12LF1840-E/MF
MTCH112-I/MF
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PIC12F1501T-I/MC
PIC12LF1501-E/MC
PIC12LF1501-I/MC020
PIC12LF1501-I/MC
PIC12LF1501T-I/MC020
PIC12LF1501T-I/MC021
PIC12LF1501T-I/MC
PIC12LF1501T-E/MC

**CCB 4440 and 4440.001
Pre and Post Change Summary
PCN #: KSRA-13AKNI696**



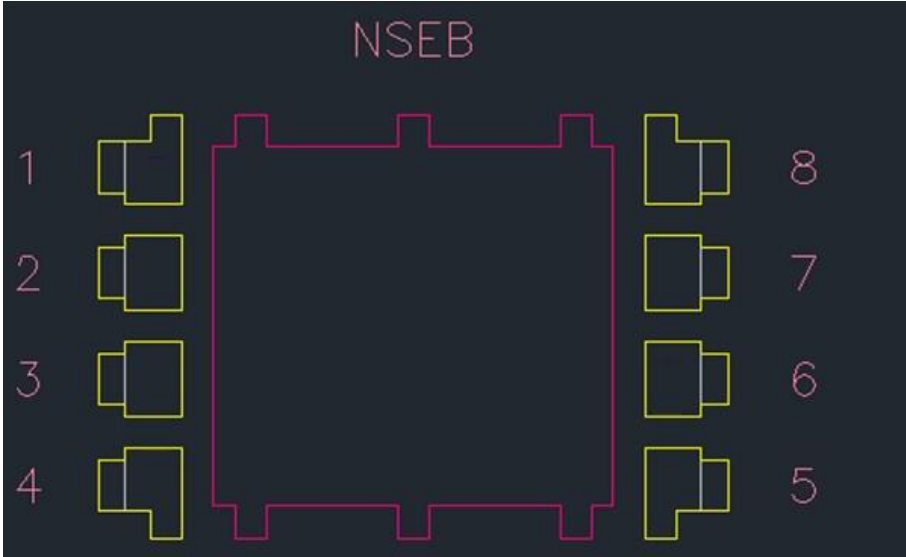
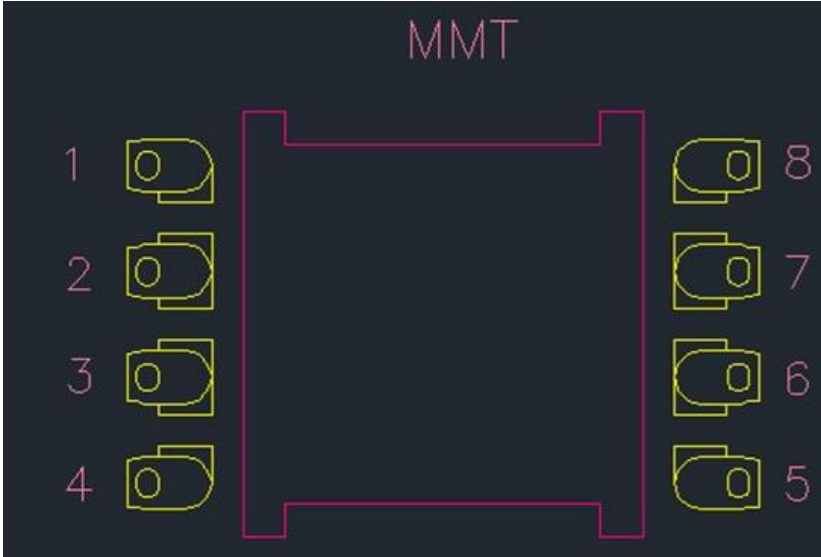
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**Qualification of MMT as an additional assembly site for selected
MITCH112. MITCH180, PIC10xxxx and PIC12xxxx products available
in 8L DFN (3x3x0.9mm and 2x3x0.9mm) package.**



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Pre and Post Change

	Pre Change	Post Change
Lead frame Design	 The diagram shows a lead frame design labeled "NSEB". It features a central rectangular area with a pink border. On the left and right sides, there are four pairs of yellow rectangular pads, numbered 1 through 8. The pads are arranged in a 2x4 grid on each side. The numbers 1, 2, 3, and 4 are on the left, and 8, 7, 6, and 5 are on the right.	 The diagram shows a lead frame design labeled "MMT". It features a central rectangular area with a pink border. On the left and right sides, there are four pairs of yellow rectangular pads, numbered 1 through 8. The pads are arranged in a 2x4 grid on each side. The numbers 1, 2, 3, and 4 are on the left, and 8, 7, 6, and 5 are on the right.



QUALIFICATION PLAN SUMMARY

PCN #: KSRA-13AKNI696

Date
October 29, 2020

Qualification of MMT as an additional assembly site for selected MITCH112, MITCH180, PIC10xxxx and PIC12xxxx products available in 8L DFN (3x3x0.9mm and 2x3x0.9mm) package.

Purpose: Qualification of MMT as an additional assembly site for selected MITCH112, MITCH180, PIC10xxxx and PIC12xxxx products available in 8L DFN (3x3x0.9mm and 2x3x0.9mm) package.

<u>Misc.</u>	Assembly site	MMT
	BD Number	BDM-002698
	MP Code (MPC)	LEBD24A7XB04
	Part Number (CPN)	PIC12F1822-E/MF
	MSL information	MSL-1@260C
	Assembly Shipping Media (T/R, Tube/Tray)	Tube
	Base Quantity Multiple (BQM)	120
	Reliability Site	MTAI
	CCB No	4440 and 4440.001
<u>Lead-Frame</u>	Paddle size	102x71
	Material	C194
	DAP Surface Prep	Bare Cu
	Treatment	BOT
	Process	Etched
	Lead-lock	Yes
	Part Number	10100851
	Lead Plating	Matte Tin
	Strip Size	250x70mm
	Strip Density	1170 units/Strip
<u>Bond Wire</u>	Material	CuPdAu
<u>Die Attach</u>	Part Number	3280
	Conductive	Yes
<u>MC</u>	Part Number	G700
<u>PKG</u>	PKG Type	DFN
	Pin/Ball Count	8
	PKG width/size	3x3x0.9mm

Test Name	Conditions	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
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		5	30 bonds from a min. 5 devices.
Wire Sweep								Required for any reduction in wire bond thickness.
External Visual	Mil. Std. 883-2009/2010	All devices prior to submission for qualification testing	0	3	ALL	0	5	
Preconditioning - Required for surface mount devices	+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; Electrical test pre and post stress at +25°C. and hot MSL-1@260	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.
HAST	+130°C/85% RH for 96 hours Electrical test pre and post stress at +25°C and hot temp. Max temp testing at 125C.	77	5	3	246	0	10	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.
UHAST	+130°C/85% RH for 96 hrs Electrical test pre and post stress at +25°C Max temp testing at 125C.	77	5	3	246	0	10	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.