Product Change Notification - GBNG-06YWZH104

Date: 28 Nov 2017

Product Category: Memory; Switching Regulators; Successive Approximation Register (SAR) A/D Converters; Linear Op Amps; Linear Comparators; Linear Selectable Gain Amplifiers; Linear Programmable Gain Amplifiers

Notification subject: CCB 3177 Initial Notice: Qualification of MMT as an additional assembly site for selected products of the 120K and 121K wafer technologies available in 8L MSOP package using CuPdAu bond wire.

Notification text:

PCN Status:
Initial notification.

PCN Type:
Manufacturing Change

Microchip Parts Affected:
Please open the attachments found in the attachments field below labeled as PCN_#_Affected_CPN.

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 products of the 120K and 121K wafer technologies available in 8L MSOP package using palladium coated copper with gold flash (CuPdAu) bond wire.

Pre Change:

Assembled at MTAI assembly site.

Post Change:

Assembled at MTAI or MMT assembly site.

Pre and Post Change Summary:

	Pre Change	Post Change	
Assembly Site	Microchip Technology Thailand - HQ (MTAI)	Microchip Technology Thailand - HQ (MTAI)	Microchip Technology Thailand – Branch (MMT)
Wire material	CuPdAu	CuPdAu	CuPdAu
Die attach material	8390A	8390A	8390A
Molding compound material	G600V	G600V	G600V
Lead frame material	CDA194	CDA194	CDA194

Impacts to Data Sheet:
None

Change Impact:
None

Reason for Change:
To improve productivity by qualifying MMT as an additional assembly site.

Change Implementation Status:
In Progress

Estimated Qualification Completion Date:
January 2018

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 2017					-->	January 2018				
Workweek	44	45	46	47	48		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 28, 2017: 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.

Attachment(s):

PCN_GBNG-06YWZH104_Affected CPN.pdf
PCN_GBNG-06YWZH104_Qual Plan.pdf
PCN_GBNG-06YWZH104_Affected CPN.xlsx

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

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MICROCHIP

QUALIFICATION PLAN SUMMARY

PCN #: GBNG-06YWZH104

Date:
November 02, 2017

Qualification of MMT as an additional assembly site for selected products of the 120K and 121K wafer technologies available in 8L MSOP package using palladium coated copper with gold flash (CuPdAu) bond wire.

Purpose: Qualification of MMT as an additional assembly site for selected products of the 120K and 121K wafer technologies available in 8L MSOP package using palladium coated copper with gold flash (CuPdAu) bond wire.

CCB: 3177

		Qualification Report
Misc.	**Assembly site**	MMT
	BD Number	BDM-001547/A
	MP Code (MPC)	A7BV84A3XA00
	Part Number (CPN)	MCP6282-E/MS
Lead-Frame	**Paddle size**	68x94 mils
	Material	CDA194
	Surface	Bare Cu
	Treatment	BOT
	Process	Stamped
	Lead-lock	No
	Part Number	10100838
	Lead Plating	Matte Tin
Bond Wire	**Material**	CuPdAu
Die Attach	**Part Number**	8390A
	Conductive	Yes
MC	**Part Number**	G600V
PKG	**PKG Type**	MSOP
	Pin/Ball Count	8
	PKG width/size	3x3mm
Die	**Die Thickness**	8 mils
	Die Size	43.5x58 mils
	Fab Process (site)	120K/MCHP

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	Test Site	Special Instructions
Standard Pb-free Solderability	J-STD-002 ; Perform 8 hour 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	MTAI	Standard Pb-free solderability is the requirement. SnPb solderability (backward solderability- SMD reflow soldering) is required for any plating related changes and highly recommended for other package BOM changes.
Backward Solderability	J-STD-002 ;Perform 8 hours steam aging for Matte tin finish and 1 hour steam aging for NiPdAu finish prior to testing. Backward: Matte tin/ NiPdAu finish, SnPb solder, wetting temp 215°C for SMD.	22	5	1	27	> 95% lead coverage	5	MTAI	
Wire Bond Pull - WBP	Mil. Std. 883-2011	5	0	3	15	0 fails after TC	5	MMT/MTAI	30 bonds from a minimum of 5 devices.
Wire Bond Shear - WBS	CDF-AEC-Q100-001	5	0	3	15		5	MMT/MTAI	30 bonds from a minimum of 5 devices.
Wire Sweep		5	0	3	15	0		MMT	Required for any reduction in wire bond thickness.
Physical Dimensions	Measure per JESD22 B100 and B108	10	0	3	30	0	5	MTAI	
External Visual	Mil. Std. 883-2009/2010	All devices prior to submission for qualification testing	0	3	ALL	0	5	MTAI	

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	Test Site	Special Instructions
HTSL (High Temp Storage Life)	+175 C for 504 hours. Electrical test pre and post stress at +25°C and hot temp.85ºC. 1 lot to be tested at 125C	45	5	1	50	0	25	MTAI	
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-020D for package type; Electrical test pre and post stress at +25°C MSL1 @ 260°C	231	15	3	738	0	15	MTAI	Spares should be properly identified. 77 parts from each lot to be used for HAST, Autoclave, Temp Cycle test.
HAST	+130°C/85% RH for 96 hours. Electrical test pre and post stress at +25°C and hot temp. 1 lot to be tested at 125C	77	5	3	246	0	10	MTAI	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.
Unbiased HAST	+130°C/85% RH for 96 hrs. Electrical test pre and post stress at +25°C.	77	5	3	246	0	10	MTAI	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.
Temp Cycle	-65°C to +150°C for 500 cycles. Electrical test pre and post stress at hot temp; 3 gram force WBP, on 5 devices from 1 lot, test following Temp Cycle stress. 1 lot to be tested at 125C	77	5	3	246	0	15	MTAI	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.

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Affected Catalog Part Numbers (CPN)

PCN_GBNG-06YWZH104
CATALOG_PART_NBR
24AA04-I/MSRVC
24AA04T-I/MSRVC
24C02C-E/MS
24C02C-I/MS
24C02CT-E/MS
24C02CT-I/MS
24LC01B-I/MS
24LC01BT-I/MS
24LC04B-I/MSRVC
24LC04BT-I/MSRVC
MCP1650R-E/MS
MCP1650RT-E/MS
MCP1650S-E/MS
MCP1650ST-E/MS
MCP1651R-E/MS
MCP1651RT-E/MS
MCP1651S-E/MS
MCP1651ST-E/MS
MCP1652R-E/MS
MCP1652RT-E/MS
MCP1652S-E/MS
MCP1652ST-E/MS
MCP3001-I/MS
MCP3002-I/MS
MCP3201-CI/MS
MCP3201T-CI/MS
MCP3202-CI/MS
MCP3202T-CI/MS
MCP3301-BI/MS
MCP3301-CI/MS
MCP3301T-BI/MS
MCP3301T-CI/MS
MCP6002-E/MS
MCP6002-I/MS
MCP6002T-E/MS
MCP6002T-E/MSHAZ
MCP6002T-I/MS
MCP6021-E/MS
MCP6021T-E/MS
MCP6031-E/MS
MCP6031T-E/MS
MCP6032-E/MS
MCP6032T-E/MS

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Affected Catalog Part Numbers (CPN)

PCN_GBNG-06YWZH104
CATALOG_PART_NBR
MCP6033-E/MS
MCP6033T-E/MS
MCP6041-E/MS
MCP6041-I/MS
MCP6041T-E/MS
MCP6041T-I/MS
MCP6042-E/MS
MCP6042-I/MS
MCP6042T-E/MS
MCP6042T-I/MS
MCP6043-E/MS
MCP6043-I/MS
MCP6043T-E/MS
MCP6043T-I/MS
MCP6141-E/MS
MCP6141-I/MS
MCP6141T-E/MS
MCP6141T-I/MS
MCP6142-E/MS
MCP6142-I/MS
MCP6142T-E/MS
MCP6142T-I/MS
MCP6143-E/MS
MCP6143-I/MS
MCP6143T-E/MS
MCP6143T-I/MS
MCP616-I/MS
MCP616T-I/MS
MCP617-I/MS
MCP617T-I/MS
MCP618-I/MS
MCP618T-I/MS
MCP6231-E/MS
MCP6231T-E/MS
MCP6232-E/MS
MCP6232T-E/MS
MCP6241-E/MS
MCP6241T-E/MS
MCP6242-E/MS
MCP6242T-E/MS
MCP6271-E/MS
MCP6271T-E/MS
MCP6272-E/MS

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Affected Catalog Part Numbers (CPN)

PCN_GBNG-06YWZH104
CATALOG_PART_NBR
MCP6272T-E/MS
MCP6273-E/MS
MCP6273T-E/MS
MCP6275-E/MS
MCP6275T-E/MS
MCP6281-E/MS
MCP6281T-E/MS
MCP6282-E/MS
MCP6282T-E/MS
MCP6283-E/MS
MCP6283T-E/MS
MCP6285-E/MS
MCP6285T-E/MS
MCP6291-E/MS
MCP6291T-E/MS
MCP6292-E/MS
MCP6292-E/MSAAA
MCP6292T-E/MS
MCP6292T-E/MSAAA
MCP6293-E/MS
MCP6293T-E/MS
MCP6295-E/MS
MCP6295T-E/MS
MCP6442-E/MS
MCP6442T-E/MS
MCP6541-E/MS
MCP6541-I/MS
MCP6541T-E/MS
MCP6541T-I/MS
MCP6542-E/MS
MCP6542-I/MS
MCP6542T-E/MS
MCP6542T-I/MS
MCP6543-E/MS
MCP6543-I/MS
MCP6543T-E/MS
MCP6543T-I/MS
MCP6546-E/MS
MCP6546-I/MS
MCP6546T-E/MS
MCP6546T-I/MS
MCP6547-E/MS
MCP6547-I/MS

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Affected Catalog Part Numbers (CPN)

PCN_GBNG-06YWZH104
CATALOG_PART_NBR
MCP6547T-E/MS
MCP6547T-I/MS
MCP6548-E/MS
MCP6548-I/MS
MCP6548T-E/MS
MCP6548T-I/MS
MCP6G01-E/MS
MCP6G01T-E/MS
MCP6G02-E/MS
MCP6G02T-E/MS
MCP6G03-E/MS
MCP6G03T-E/MS
MCP6L02T-E/MS
MCP6L1T-E/MS
MCP6L2T-E/MS
MCP6L71T-E/MS
MCP6L72T-E/MS
MCP6L91T-E/MS
MCP6L92T-E/MS
MCP6L92T-E/MSHHH
MCP6S21-I/MS
MCP6S21T-I/MS
MCP6S22-I/MS
MCP6S22T-I/MS
MCP6S91-E/MS
MCP6S91T-E/MS
MCP6S92-E/MS
MCP6S92T-E/MS