Product Change Notification - KSRA-05ATCO683

Date:

11 Mar 2019

Product Category:

Others; Linear Regulators

Affected CPNs:

Notification subject:

CCB 3454 and 3454.001 Initial Notice: Qualification of GTBF as a new assembly site for selected products of 0.8um XFAB, 0.8um AMS and 0.6um AMI, 130K and 133K wafer technologies available in 3L and 5L DDPAK packages with MSL 3 classification.

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 GTBF as a new assembly site for selected products of 0.8um XFAB, 0.8um AMS and 0.6um AMI, 130K and 133K wafer technologies available in 3L and 5L DDPAK packages.

Pre Change:

Assembled at CARSEM using 84-1 LMISR4 die attach, CEL-9240HF10 molding compound and HCL-12S leadframe material with MSL 1 classification

Post Change:

Assembled at GTBF using CRM-1800 die attach, EME-G600 molding compound and LY80 leadframe material with MSL 3 classification

Pre and Post Change Summary:

	Pre Change	Post Change
Assembly Site	Carsem (M) SDN BHD (CARM)	Great Team Backend Foundry (Dong Guan) Ltd. (GTBF)
Wire material	Au wire	Au wire
Die attach material	84-1 LMISR4	CRM-1800
Molding compound material	CEL-9240HF10	EME-G600
Lead frame material	HCL-12S	LY80
MSL Classification	MSL 1	MSL 3

Impacts to Data Sheet:

None

Change Impact:

None

Reason for Change:

To improve on-time delivery performance by qualifying GTBF as a new assembly site. CARM assembly site will no longer have manufacturing support for the selected products.

Change Implementation Status:

In Progress

Estimated Qualification Completion Date:

April 2019

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:

	August 2018					🕮♋ ♑❒♋ ❖♏▭	April 2019				
Workweek	31	32	33	34	35		14	15	16	17	18
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:

August 10, 2018: Issued initial notification.

March 11, 2019: Re-issued initial notification. Updated the qual plan to change the MSL level classification and added hot temperature 125°C in selected reliability test.

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_KSRA-05ATCO683_Qual__Plan.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)

MCP1790-3002E/EB
MCP1790-3302E/EB
MCP1790-5002E/EB
MCP1790T-3002E/EB
MCP1790T-3302E/EB
MCP1790T-3302E/EBVAO
MCP1790T-5002E/EB
MCP1790T-5002E/EBVAO
MCP1791-3002E/ET
MCP1791-3302E/ET
MCP1791-5002E/ET
MCP1791T-3002E/ET
MCP1791T-3302E/ET
MCP1791T-5002E/ET
MCP1825-0802E/ET
MCP1825-1202E/ET
MCP1825-1802E/ET
MCP1825-2502E/ET
MCP1825-3002E/ET
MCP1825-3302E/ET
MCP1825-5002E/ET
MCP1825-ADJE/ET
MCP1825S-0802E/EB
MCP1825S-1202E/EB
MCP1825S-1802E/EB
MCP1825S-2502E/EB
MCP1825S-3002E/EB
MCP1825S-3302E/EB
MCP1825S-5002E/EB
MCP1825ST-0802E/EB
MCP1825ST-1202E/EB
MCP1825ST-1802E/EB
MCP1825ST-2502E/EB
MCP1825ST-3002E/EB
MCP1825ST-3302E/EB
MCP1825ST-3302E/EBVAO
MCP1825ST-5002E/EB
MCP1825T-0802E/ET
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MCP1826-2502E/ET
MCP1826-3002E/ET
MCP1826-3302E/ET
MCP1826-5002E/ET
MCP1826-ADJE/ET
MCP1826S-0802E/EB
MCP1826S-1202E/EB
MCP1826S-1802E/EB
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MCP1826T-1802E/ET
MCP1826T-2502E/ET
MCP1826T-3002E/ET
MCP1826T-3302E/ET
MCP1826T-5002E/ET
MCP1826T-ADJE/ET
MCP1827-0802E/ET
MCP1827-1002E/ET
MCP1827-1202E/ET
MCP1827-1802E/ET
MCP1827-2502E/ET
MCP1827-3002E/ET
MCP1827-3302E/ET
MCP1827-5002E/ET
MCP1827-ADJE/ET
MCP1827S-0802E/EB
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MCP1827S-3302E/EB
MCP1827S-5002E/EB
MCP1827ST-0802E/EB
MCP1827ST-1002E/EB

MCP1827ST-1202E/EB
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MCP1827T-ADJE/ET
TC1262-2.5VEB
TC1262-2.5VEBTR
TC1262-2.8VEB
TC1262-2.8VEBTR
TC1262-3.0VEB
TC1262-3.0VEBTR
TC1262-3.3VEB
TC1262-3.3VEBTR
TC1262-5.0VEB
TC1262-5.0VEBTR
TC1263-2.5VET
TC1263-2.5VETTR
TC1263-2.8VET
TC1263-2.8VETTR
TC1263-3.0VET
TC1263-3.0VETTR
TC1263-3.3VET
TC1263-3.3VETTR
TC1263-5.0VET
TC1263-5.0VETTR
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TC1264-1.8VEBTR
TC1264-2.5VEB
TC1264-2.5VEBTR
TC1264-3.0VEB
TC1264-3.0VEBTR
TC1264-3.3VEB
TC1264-3.3VEBTR
TC1265-1.8VET
TC1265-1.8VETTR
TC1265-2.5VET
TC1265-2.5VETTR
TC1265-3.0VET
TC1265-3.0VETTR

TC1265-3.3VET

TC1265-3.3VETTR

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QUALIFICATION PLAN SUMMARY

PCN #: KSRA-05ATCO683

Date:
July 13, 2018

Qualification of GTBF as a new assembly site for selected products of 0.8um XFAB, 0.8um AMS and 0.6um AMI, 130K and 133K wafer technologies available in 5L DDPAK packages with MSL 3 classification. The selected products available in 3L DDPAK package will qualify by similarity (QBS)

Purpose: **Qualification of GTBF as a new assembly site for selected products of 0.8um XFAB, 0.8um AMS and 0.6um AMI, 130K and 133K wafer technologies available in 5L DDPAK packages with MSL 3 classification. The selected products available in 3L DDPAK package will qualify by similarity (QBS)**

MP code: ________________ Y1AD34J7XB30

Part No.: ________________ MCP1791-3002E/ET

BD No: ___________________ BDM-001893 rev.B

CCB No: _______________ 3454 and 3454.001

Package:

Type/Pin: ________________ 5L DDPAK

Width or Size: ____________ n/a

Die thickness: ____________ 15 mils

Die size: _________________ 65.00 x 65.90 mils

MSL: ___________________ MSL-3@245C

Misc.	**Assembly site**	GTBF
	BD Number	BDM-001893 rev.A
	MP Code (MPC)	Y1AD34J7XB30
	Part Number (CPN)	MCP1791-3002E/ET
Lead-Frame	**Paddle size**	266 x 174 mils
	Material	LY80
	Surface	Spot Ag
	Treatment	None
	Process	Stamped
	Lead-lock	Yes
	Part Number	A1-TO263-5-1CFAG
	LF Thickness	50 mils Pad:1.27mm/Lead:0.381mm (Dual Gauge LF)
	Lead Plating	Matte Tin
Bond Wire	**Material**	Au
Die Attach	**Part Number**	CRM-1800
	Conductive	Yes
MC	**Part Number**	EME-G600
PKG	**PKG Type**	DDPAK
	Pin/Ball Count	5
	PKG width/size	n/a
Die	**Die Thickness**	15 mils
	Die Size	65.00 x 65.90 mils

Test Name	Conditions	Reliability Stress Read Point Grade 1: -40°C to +125°C	Pre & Post Reliability Stress Test Temperature Grade 1: -40°C to +125°C	Sample Size	Min. Qty of Spares per Lot (should be properly marked)	Qty of Lots	Total Units	Fail Accept Qty	Est. Dur. Days	ATE Test Site	REL Test Site	Pkg. Type	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. SnPb solderability (backward solderability- SMD reflow soldering) is required for any plating related changes and highly recommended for other package BOM changes.
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.
Physical Dimensions	Measure per JESD22 B100 and B108			10	0	3	30		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 +125, +150°C or +175°C	Grade 1: 500 hrs (+175°C)	Grade 1: +25°C, +125°C	45	5	1	50	0	21 - 83	MTAI	MTAI		Spares should be properly identified.

Test Name	Conditions	Reliability Stress Read Point Grade 1: -40°C to +125°C	Pre & Post Reliability Stress Test Temperature Grade 1: -40°C to +125°C	Sample Size	Min. Qty of Spares per Lot (should be properly marked)	Qty of Lots	Total Units	Fail Accept Qty	Est. Dur. Days	ATE Test Site	REL Test Site	Pkg. Type	Special Instructions
Preconditioning - Required for surface mount devices	J-STD-020JESD22-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. MSL-3 @245C		Grade 1: +25°C +125°C	231	15	3	738	0	15	MTAI	MTAI		Spares should be properly identified. 77 parts from each lot to be used for HAST, Autoclave, Temp Cycle test.
HAST	JESD22-A101 or A110 +130°C/85% RH for 96 hrs or +110°C/85%RH for 264 hrs	Grade 1: 96 hrs (+130°C/85% RH)	Grade 1: +25°C, +125°C	77	5	3	246	0	10 - 14	MTAI	MTAI		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 or +110°C/85% RH for 264 hrs	Grade 1: 96 hrs (+130°C/85% RH)	Grade 1: +25°C	77	5	3	246	0	10	MTAI	MTAI		Spares should be properly identified. Use the parts which have gone through Pre-conditioning.
Temp Cycle	JESD22-A104 and Appendix 3 -55ºC to +125ºC, -55ºC to +150ºC or -65°C to +150°C	Grade 1: 500 cycles (-65ºC to 150ºC)	Grade 1: +125°C	77	5	3	246	0	15 - 60	MTAI	MTAI		Spares should be properly identified. Use the parts which have gone through Pre-conditioning.