

Product Change Notification - RMES-02QYDW424

Date: 18 Apr 2017
Product Category: Power Management - System Supervisors/Voltage Detectors; Linear Regulators
Notification subject: CCB 2885 Initial Notice: Qualification of JCET as an additional assembly site for selected products of the 120K wafer technology available in 3L SOT-23 package using (CuPdAu) bond wire.
Notification text: **PCN Status:**
Initial notification.

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 JCET as an additional assembly site for selected products of the 120K wafer technology available in 3L SOT-23 package using palladium coated copper with gold flash (CuPdAu) bond wire.

Pre Change:

Assembled at MTAI, ATES or NSEB using gold (Au) bond wire and G600 molding compound material.

Post Change:

Assembled at MTAI, ATES and NSEB using gold (Au) bond wire and G600 molding compound material or assembled at JCET using palladium coated copper with gold flash (CuPdAu) bond wire and ELER-8-100HFE molding compound material.

Pre and Post Change Summary:

Assembly Site	Pre Change			Post Change			
	MTAI	ATES	NSEB	MTAI	ATES	NSEB	JCET
Lead frame material	CDA194	CDA194	CDA194	CDA194	CDA194	CDA194	CDA194
Wire material	Au	Au	Au	Au	Au	Au	CuPdAu
Die attach material	84-3J/ 8006NS	2025DSI	8006NS	84-3J/ 8006NS	2025DSI	8006NS	8006NS
Mold compound material	G600	G600	G600	G600	G600	G600	ELER-8- 100HFE

Impacts to Data Sheet:

None

Change Impact:

None

Reason for Change:

To improve productivity by qualifying JCET as an additional assembly site.

Change Implementation Status:

In Progress

Estimated Qualification Completion Date:

June 2017

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:

	April 2017		June 2017
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Workweek	->							
	14	15	16	17	23	24	25	26
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:

April 18, 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_RMES-02QYDW424_Qual_Plan.pdf](#)

[PCN_RMES-02QYDW424_Affected_CPN.pdf](#)

[PCN_RMES-02QYDW424_Affected_CPN.xlsx](#)

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

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Affected Catalog Part Numbers (CPN)

PCN_RMES-02QYDW424
CATALOG_PART_NBR
MCP103T-195I/TT
MCP103T-240E/TT
MCP103T-270E/TT
MCP103T-300E/TT
MCP103T-315E/TT
MCP103T-450E/TT
MCP103T-475E/TT
MCP111T-195I/TT
MCP111T-240E/TT
MCP111T-240E/TTHH
MCP111T-270E/TT
MCP111T-290E/TT
MCP111T-300E/TT
MCP111T-315E/TT
MCP111T-325E/TT
MCP111T-450E/TT
MCP111T-475E/TT
MCP112T-195I/TT
MCP112T-240E/TT
MCP112T-240E/TT713
MCP112T-270E/TT
MCP112T-290E/TT
MCP112T-300E/TT
MCP112T-315E/TT
MCP112T-450E/TT
MCP112T-475E/TT
MCP1700T-1202E/TT
MCP1700T-1202I/TT
MCP1700T-1302E/TT
MCP1700T-1402E/TT
MCP1700T-1501E/TT
MCP1700T-1502E/TT
MCP1700T-1502I/TT
MCP1700T-1602E/TT
MCP1700T-1702E/TT
MCP1700T-1801E/TT
MCP1700T-1802E/TT
MCP1700T-1802I/TT
MCP1700T-1902E/TT
MCP1700T-2002E/TT
MCP1700T-2002E/TTAAA

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Affected Catalog Part Numbers (CPN)

PCN_RMES-02QYDW424
CATALOG_PART_NBR
MCP1700T-2052E/TT
MCP1700T-2102E/TT
MCP1700T-2201E/TT
MCP1700T-2202E/TT
MCP1700T-2301E/TT
MCP1700T-2302E/TT
MCP1700T-2402E/TT
MCP1700T-2501E/TT
MCP1700T-2502E/TT
MCP1700T-2502I/TT
MCP1700T-2601E/TT
MCP1700T-2602E/TT
MCP1700T-2702E/TT
MCP1700T-2801E/TT
MCP1700T-2802E/TT
MCP1700T-2802I/TT
MCP1700T-2902E/TT
MCP1700T-3001E/TT
MCP1700T-3002E/TT
MCP1700T-3002E/TTAAB
MCP1700T-3002I/TT
MCP1700T-3102E/TT
MCP1700T-3102I/TT
MCP1700T-3202E/TT
MCP1700T-3301E/TT
MCP1700T-3302E/TT
MCP1700T-3302E/TTAAC
MCP1700T-3302E/TTAAE
MCP1700T-3302E/TTHH
MCP1700T-3302I/TT
MCP1700T-3402E/TT
MCP1700T-3501E/TT
MCP1700T-3502E/TT
MCP1700T-3601E/TT
MCP1700T-3602E/TT
MCP1700T-3702E/TT
MCP1700T-3802E/TT
MCP1700T-3902E/TT
MCP1700T-4001E/TT
MCP1700T-4002E/TT
MCP1700T-4002I/TT

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Affected Catalog Part Numbers (CPN)

PCN_RMES-02QYDW424
CATALOG_PART_NBR
MCP1700T-4101E/TT
MCP1700T-4102E/TT
MCP1700T-4202E/TT
MCP1700T-4302E/TT
MCP1700T-4402E/TT
MCP1700T-4502E/TT
MCP1700T-4602E/TT
MCP1700T-4702E/TT
MCP1700T-4802E/TT
MCP1700T-4902E/TT
MCP1700T-5002E/TT
MCP1700T-5002E/TTAAD
MCP1700T-5002I/TT
MCP809T-270I/TT
MCP809T-270I/TTBAA
MCP809T-270I/TTROC
MCP809T-300I/TT
MCP809T-300I/TTROC
MCP809T-315I/TT
MCP809T-450I/TT
MCP809T-460I/TT
MCP809T-475I/TT
MCP809T-485I/TT
MCP810T-270I/TT
MCP810T-270I/TTROC
MCP810T-300I/TT
MCP810T-315I/TT
MCP810T-450I/TT
MCP810T-450I/TTROC
MCP810T-460I/TT
MCP810T-475I/TT
MCP810T-475I/TTBAA
MCP810T-485I/TT



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QUALIFICATION PLAN SUMMARY

PCN #: RMES-02QYDW424

**Date:
April 3, 2017**

Qualification of JCET as an additional assembly site for selected products of the 120K wafer technology available in 3L SOT-23 package using palladium coated copper with gold flash (CuPdAu) bond wire.

Purpose: _____ Qualification of JCET as an additional assembly site for selected products of the 120K wafer technology available in 3L SOT-23 package using palladium coated copper with gold flash (CuPdAu) bond wire.

CCB No: _____ 2885

MP code: _____ ABBA1YC6XA33

Part No.: _____ MCP1700T-3302E/TT

BD No: _____ BDM -001278 Rev.B

Package:

Type _____ 3L SOT23

Die thickness: _____ 8 mils

Die size: _____ 53.4 x 28.6 mil

MSL: _____ MSL1 @260C

Lead frame:

Paddle size: _____ 75x42 mils

Material _____ CDA194

Plating _____ Spot Ag

Surface Treatment _____ None

Process _____ Stamped

Leadlock _____ No

Wire:

Material _____ CuPdAu

Die Attach Epoxy:

Part Number _____ 8006NS

Conductive _____ Non-conductive screen print

Mold Compound:

Part Number _____ ELER-8-100HFE

Lead finish: _____ Matte Tin

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
Standard Pb-free Solderability	JESD22B-102E; 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	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	3	24	0 fails after TC	5	30 bonds from a minimum of 5 devices.
Wire Bond Shear - WBS	CDF-AEC-Q100-001	5	0	3	24		5	30 bonds from a minimum of 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)	+175 C for 504 hours or 150°C for 1008 hrs. Electrical test pre and post stress at +25°C	45	5	1	50	0	10	Must be in progress at time of package release to production, but completion is not required for release to production.
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	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	77	5	3	246	0	10	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.

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
Unbiased HAST	+130 °C/85% RH for 96 hrs Electrical test pre and post stress at +25 °C	77	5	3	246	0	10	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 25 °C; 3 gram force WBP, on 5 devices from 1 lot, test following Temp Cycle stress.	77	5	3	246	0	15	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.