



## Product Change Notification / JAON-22AYAM633

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### Date:

27-Dec-2022

### Product Category:

Linear Regulators, Power Management - System Supervisors/Voltage Detectors

### PCN Type:

Manufacturing Change

### Notification Subject:

CCB 6063 Final Notice: Qualification of CRTK as a new assembly site for selected MCP130, MCP100, MCP101, MCP120, MCP102, MCP131, MCP121, MCP112, MCP111, and MCP1700 device families available in 3L TO-92 package.

### Affected CPNs:

[JAON-22AYAM633\\_Affected\\_CPN\\_12272022.pdf](#)

[JAON-22AYAM633\\_Affected\\_CPN\\_12272022.csv](#)

### Notification Text:

**PCN Status:**Final 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 CRTK as a new assembly site for selected MCP130, MCP100, MCP101, MCP120, MCP102, MCP131, MCP121, MCP112, MCP111, and MCP1700 device families available in 3L TO-92 package.

### Pre and Post Change Summary:



**Method to Identify Change:**Traceability code

**Qualification Report:**Please open the attachments included with this PCN labeled as PCN\_#\_Qual\_Report.

**Revision History:**December 27, 2022: Issued final 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\\_JAON-22AYAM633\\_Qual\\_Report.pdf](#)

[PCN\\_JAON-22AYAM633\\_Pre and Post Change Summary.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)

MCP130-270DI/TO  
MCP130-300DI/TO  
MCP130-315DI/TO  
MCP130-450DI/TO  
MCP130-460DI/TO  
MCP130-475DI/TO  
MCP130-485DI/TO  
MCP130-270FI/TO  
MCP130-300FI/TO  
MCP130-315FI/TO  
MCP130-450FI/TO  
MCP130-460FI/TO  
MCP130-475FI/TO  
MCP130-485FI/TO  
MCP130-270HI/TO  
MCP130-300HI/TO  
MCP130-315HI/TO  
MCP130-450HI/TO  
MCP130-460HI/TO  
MCP130-475HI/TO  
MCP130-485HI/TO  
MCP100-270DI/TO  
MCP100-300DI/TO  
MCP100-315DI/TO  
MCP100-450DI/TO  
MCP100-460DI/TO  
MCP100-475DI/TO  
MCP100-485DI/TO  
MCP100-270HI/TO  
MCP100-300HI/TO  
MCP100-315HI/TO  
MCP100-450HI/TO  
MCP100-460HI/TO  
MCP100-475HI/TO  
MCP100-485HI/TO  
MCP101-270DI/TO  
MCP101-300DI/TO  
MCP101-315DI/TO  
MCP101-450DI/TO  
MCP101-460DI/TO  
MCP101-475DI/TO  
MCP101-485DI/TO  
MCP101-270HI/TO  
MCP101-300HI/TO  
MCP101-315HI/TO  
MCP101-450HI/TO

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MCP101-460HI/TO  
MCP101-475HI/TO  
MCP101-485HI/TO  
MCP120-270DI/TO  
MCP120-300DI/TO  
MCP120-315DI/TO  
MCP120-450DI/TO  
MCP120-460DI/TO  
MCP120-475DI/TO  
MCP120-485DI/TO  
MCP120-270GI/TO  
MCP120-300GI/TO  
MCP120-315GI/TO  
MCP120-450GI/TO  
MCP120-460GI/TO  
MCP120-475GI/TO  
MCP120-485GI/TO  
MCP120-270HI/TO  
MCP120-300HI/TO  
MCP120-315HI/TO  
MCP120-450HI/TO  
MCP120-460HI/TO  
MCP120-475HI/TO  
MCP120-485HI/TO  
MCP102-240E/TO  
MCP102-270E/TO  
MCP102-300E/TO  
MCP102-315E/TO  
MCP102-450E/TO  
MCP102-475E/TO  
MCP102-195I/TO  
MCP131-240E/TO  
MCP131-270E/TO  
MCP131-300E/TO  
MCP131-315E/TO  
MCP131-450E/TO  
MCP131-475E/TO  
MCP131-195I/TO  
MCP121-240E/TO  
MCP121-270E/TO  
MCP121-300E/TO  
MCP121-315E/TO  
MCP121-315E/TOAA  
MCP121-450E/TO  
MCP121-475E/TO  
MCP121-195I/TO  
MCP112-240E/TO  
MCP112-270E/TO  
MCP112-290E/TO

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MCP112-300E/TO  
MCP112-315E/TO  
MCP112-450E/TO  
MCP112-475E/TO  
MCP112-195I/TO  
MCP111-240E/TO  
MCP111-270E/TO  
MCP111-290E/TO  
MCP111-300E/TO  
MCP111-315E/TO  
MCP111-450E/TO  
MCP111-475E/TO  
MCP111-195I/TO  
MCP1700-1402E/TO  
MCP1700-1602E/TO  
MCP1700-1702E/TO  
MCP1700-1902E/TO  
MCP1700-2002E/TO  
MCP1700-2202E/TO  
MCP1700-2402E/TO  
MCP1700-2602E/TO  
MCP1700-2902E/TO  
MCP1700-3202E/TO  
MCP1700-3402E/TO  
MCP1700-3502E/TO  
MCP1700-3602E/TO  
MCP1700-3702E/TO  
MCP1700-3802E/TO  
MCP1700-3902E/TO  
MCP1700-4102E/TO  
MCP1700-4202E/TO  
MCP1700-4302E/TO  
MCP1700-4402E/TO  
MCP1700-4502E/TO  
MCP1700-4602E/TO  
MCP1700-4702E/TO  
MCP1700-4802E/TO  
MCP1700-4902E/TO  
MCP1700-1501E/TO  
MCP1700-1801E/TO  
MCP1700-2201E/TO  
MCP1700-2501E/TO  
MCP1700-2601E/TO  
MCP1700-2801E/TO  
MCP1700-3301E/TO  
MCP1700-3501E/TO  
MCP1700-3601E/TO  
MCP1700-4001E/TO  
MCP1700-1202I/TO

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MCP1700-1502I/TO

MCP1700-1802I/TO

MCP1700-2502I/TO

MCP1700-2802I/TO

MCP1700-3002I/TO

MCP1700-3102I/TO

MCP1700-3202I/TO

MCP1700-4002I/TO

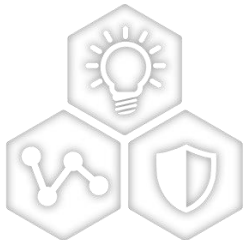
MCP1700-5002I/TO

**CCB 6063**  
**Pre and Post Change Summary**  
**PCN #: JAON-22AYAM633**



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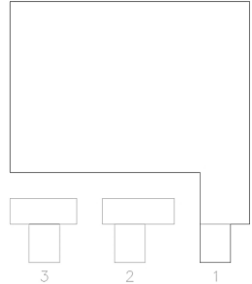
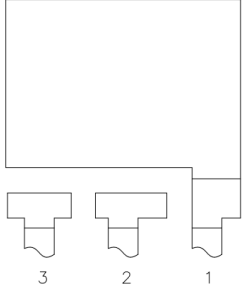
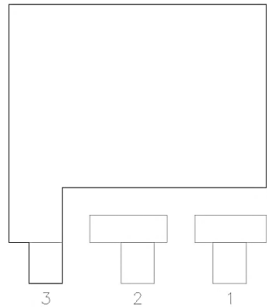
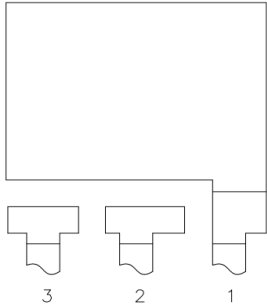
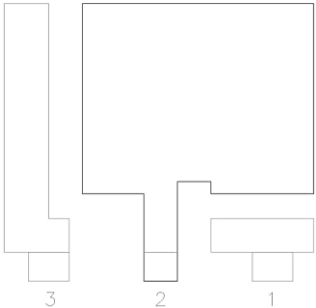
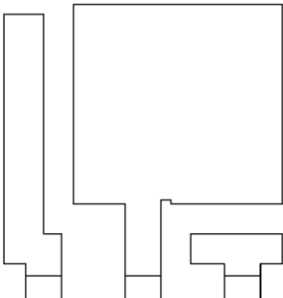
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# Lead Frame Design Comparison

PRE CHANGE (GTK)	POST CHANGE (CRTK)	Comments
		<p><b>Note 1:</b> LF and BD Lay-out and design is same  <b>Note 2:</b> This LF only applies to selected affected CPNs</p>
		<p><b>Note 1:</b> Different LF Configuration.  <b>Note 2:</b> This LF change only applies to selected affected CPNs</p>
		<p><b>Note 1:</b> LF and BD Lay-out and design is same  <b>Note 2:</b> This LF only applies to selected affected CPNs</p>



**MICROCHIP**

**QUALIFICATION REPORT SUMMARY  
RELIABILITY LABORATORY**

**PCN #: JAON-22AYAM633**

**Date:**

**March 1, 2022**

**Qualification of CEL-8240 GS as a new mold compound material for selected Supertex CL2xx, CL52xx, LND150, MCP15xx, MCP170x and MCP970xx device families available in 3L TO-92 package assembled at CRTK assembly site. The qualification of CRTK as a new assembly site for selected MCP130, MCP100, MCP101, MCP120, MCP102, MCP131, MCP121, MCP112, MCP111, and MCP1700 device families available in 3L TO-92 package will qualify by similarity (QBS).**



## **MICROCHIP**

### **PACKAGE QUALIFICATION REPORT**

<b>Purpose</b>	Qualification of CEL-8240 GS as a new mold compound material for selected Supertex CL2xx, CL52xx, LND150, MCP15xx, MCP170x and MCP970xx device families available in 3L TO-92 package assembled at CRTK assembly site. The qualification of CRTK as a new assembly site for selected MCP130, MCP100, MCP101, MCP120, MCP102, MCP131, MCP121, MCP112, MCP111, and MCP1700 device families available in 3L TO-92 package will qualify by similarity (QBS)
<b>CN</b>	E000083651
<b>QUAL ID</b>	R2200001 rev. A
<b>MP CODE</b>	ABBA14A2XA33
<b>Part No.</b>	MCP1700-3302E/TO
<b>CCB No.</b>	4885 and 6063
<b><u>Package</u></b>	
<b>Type</b>	3L TO-92
<b><u>Lead Frame</u></b>	
<b>Paddle size</b>	140 x 100 mils
<b>Material</b>	A194
<b>Surface</b>	Ag
<b>Process</b>	Stamping
<b>Lead Lock</b>	No
<b>Part Number</b>	TO03NH2105
<b><u>Die attach material</u></b>	
<b>Epoxy</b>	84-1LMISR4
<b>Wire</b>	Au wire
<b>Mold Compound</b>	CEL-8240 GS
<b>Plating Composition</b>	Matte Sn



# MICROCHIP PACKAGE QUALIFICATION REPORT

## Manufacturing Information

Assembly Lot No.	Wafer Lot No.	Date Code
CRTK223500001.000	TMPE222159703.300	2147QV8
CRTK223500002.000	TMPE222159703.300	2147QVW
CRTK223500003.000	TMPE222159703.300	2147QWG

## Result

Pass     Fail     \_\_\_\_\_

3L TO-92 assembled by CRTK pass reliability test per QCI-39000.

# PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
<b>Electrical Test</b>	<b>Electrical Test:</b> +25°C and 125°C System: TTS	JESD22- A113	693(0)	693		Good Devices
<b>Temp Cycle</b>	<b>Stress Condition:</b> -65°C to +150°C, 500 Cycles System: TABAI ESPEC TSA-70H Inspection: External crack inspection all units under 40X Optical magnification  <b>Electrical Test:</b> +125°C System: TTS  <b>Bond Strength:</b> Wire Pull (>4.00 grams) Bond Shear (>18.00 grams)	JESD22- A104		231		
			231(0)	0/231	Pass	77 units / lot
			15 (0)	0/15	Pass	
			15 (0)	0/15	Pass	
<b>UNBIASED-HAST</b>	<b>Stress Condition:</b> +130°C/85%RH, 96 hrs. System: HAST 6000X  <b>Electrical Test:</b> +25°C System: TTS1000	JESD22- A118		231		
			231(0)	0/231	Pass	77 units / lot
<b>HAST</b>	<b>Stress Condition:</b> +130°C/85%RH, 96 hrs. <b>Bias Volt:</b> 6.0 Volts System: HAST 6000X  <b>Electrical Test:</b> +25°C and 125°C System: TTS	JESD22- A110		231		
			231(0)	0/231	Pass	77 units / lot

# PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
<b>High Temperature Storage Life</b>	<b>Stress Condition:</b> Bake 175°C, 504 hrs System: SHEL LAB	JESD22-A103		45		45 units
	<b>Electrical Test:</b> +25°C and 125°C System: TTS		45(0)	0/45	Pass	
<b>Solderability Temp 245°C</b>	<b>Steam Aging:</b> Temp 93°C, 8Hrs System: SAS-3000	JESD22B-102E	22(0)	22		
	<b>Solder Dipping:</b> Solder Temp. 245°C Solder material: Pb Free Sn 95.5Ag3.9 Cu0.6 System: ERSA RA 2200D Visual Inspection: External Visual Inspection			22	0/22	Pass
<b>Lead Integrity</b>	15 Leads from a minimum of 5 units, 1 lot. System: Strain	JESD22 B105	15(0)	0/15	Pass	
<b>Wire sweep</b>	Wire sweep Inspection 15 Wires / lot	-	45(0) Wires	0/45	Pass	
<b>Physical Dimensions</b>	Physical Dimension, 10 units per lot	JESD22-B100/B108	30(0) Units	0/30	Pass	
<b>Bond Strength Data Assembly</b>	Wire Pull (>4.00 grams)	Mil. Std.	30 (0) Wires	0/30	Pass	
	Bond Shear (>13.00 grams)	883-2011	30 (0) bonds	0/30	Pass	