



Product Change Notification / ASER-06FDTY754

Date:

02-Nov-2021

Product Category:

AC/DC - Offline Linear Regulators, General Purpose LED Drivers, Linear Regulator ICs, Power Management - System Supervisors/Voltage Detectors

PCN Type:

Manufacturing Change

Notification Subject:

CCB 4882 Initial Notice: Qualification of a new molding compound for selected LR8Nxxx, LR645Nxxx, LR745Nxxx, LR12Nxxx, HV992xxx and TC32Mxxx device families available in 3L TO-92 package at CRTK assembly site.

Affected CPNs:

[ASER-06FDTY754_Affected_CPN_11022021.pdf](#)

[ASER-06FDTY754_Affected_CPN_11022021.csv](#)

Notification Text:

PCN Status:Initial 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 a new molding compound for selected LR8Nxxx, LR645Nxxx, LR745Nxxx, LR12Nxxx, HV992xxx and TC32Mxxx device families available in 3L TO-92 package.

Pre and Post Change Summary:

	Pre Change		Post Change
Assembly Site	GREATEK ELETRONIC INC. (GTK)	Cirtek Electronics Corporation (CRTK)	Cirtek Electronics Corporation (CRTK)
Wire Material	Au	Au	Au
Die Attach Material	CRM1076DJ-G	84-1LMISR4	84-1LMISR4
Molding Compound Material	G600F	EME-G600	CEL-8240 GS
Lead-Frame Material*	CDA194	A194	A194
	See Pre and Post Change Summary for Comparison.		

*Note: C194, A194 or CDA194 Lead frame material are the same material, these are simply a MCHP internal labelling difference.

Impacts to Data Sheet:None

Change Impact:None

Reason for Change:To improve productivity and on-time delivery performance by qualifying a new mold compound material at CTRK assembly site.

Change Implementation Status:In Progress

Estimated Qualification Completion Date:December 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 2021				December 2021				
Workweek	45	46	47	48	49	50	51	52	1
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 2, 2021: 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_ASER-06FDTY754-Pre and Post Change Summary.pdf](#)
[PCN_ASER-06FDTY754-Qual_Plan.pdf](#)

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

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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.



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QUALIFICATION PLAN SUMMARY

PCN #: ASER-06FDTY754

**Date:
Sep 30, 2021**

Qualification of a new molding compound for selected LR8Nxxx, LR645Nxxx, LR745Nxxx, LR12Nxxx, HV992xxx and TC32Mxxx device families available in 3L TO-92 package.

Purpose: Qualification of a new molding compound for selected LR8Nxxx, LR645Nxxx, LR745Nxxx, LR12Nxxx, HV992xxx and TC32Mxxx device families available in 3L TO-92 package.

CCB: 4882

<u>Misc.</u>	Assembly site	CRTK
	BD Number	TBD
	MP Code (MPC)	Y20201A2XA00
	Part Number (CPN)	TC32MCZB
	MSL information	N/A
	Assembly Shipping Media (T/R, Tube/Tray)	Bag
	Base Quantity Multiple (BQM)	1000
	Reliability Site	MTAI
<u>Lead-Frame</u>	Paddle size	105x87
	Material	A194
	DAP Surface Prep	Ag
	Treatment	N/A
	Process	Stamping
	Lead-lock (with Locking holes)	No
	Part Number	TO03NH2102
	Lead Plating	Matte Sn
	Strip Size	254.05+/_0.15mm
	Strip Density	50units
<u>Bond Wire</u>	Material	Au
<u>Die Attach</u>	Part Number	84-1 LMIS R4
	Conductive	Yes
<u>MC</u>	Part Number	CEL-8240
<u>PKG</u>	PKG Type	TO-92
	Pin/Ball Count	3
	PKG width/size	N/A

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	ATE Test Site	REL Test Site	Pkg. Type	Special Instructions
Standard Pb-free Solderability	J-STD-002D ; 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	MTAI	TO-92	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.
Standard SnPB Solderability	J-STD-002D ; Perform 8 hour steam aging prior to testing. Standard SnPB: SnPb finish, SnPb solder, wetting temp 215°C for SMD & 245°C for through hole packages.	22	5	1	27	> 95% lead coverage	5	MTAI	MTAI	TO-92	
Wire Bond Pull - WBP	Mil. Std. 883-2011	5	0	1	5	0	5	MTAI	MTAI	TO-92	30 bonds from a min. 5 devices.
Wire Bond Shear - WBS	CDF-AEC-Q100-001	5	0	1	5	0	5	MTAI	MTAI	TO-92	30 bonds from a min. 5 devices.
Wire Sweep								MTAI	MTAI	TO-92	Required for any reduction in wire bond thickness.
Physical Dimensions	Measure per JESD22 B100 and B108	10	0	3	30	0	5	MTAI	MTAI	TO-92	
Lead Integrity	JESD22 B105	5	0	1	5	0 (No lead breakage or cracks)	5	MTAI	MTAI	TO-92	10 leads from each of 5 parts. Not required for SMD, only required for through-hole.
External Visual	Mil. Std. 883-2009/2010	All devices prior to submission for qualification testing	0	3	ALL	0	5	MTAI	MTAI	TO-92	
HAST	+130°C/85% RH for 96 hours or 110°C/85%RH for 264 hours. Electrical test pre and post stress at +25°C	77	5	3	246	0	10	MTAI	MTAI	TO-92	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.
UHAST	+130°C/85% RH for 96 hrs or +110°C/85% RH for 264 hrs. Electrical test pre and post stress at +25°C	77	5	3	246	0	10	MTAI	MTAI	TO-92	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	MTAI	MTAI	TO-92	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.

CCB 4882
Pre and Post Change Summary
PCN #: ASER-06FDTY754



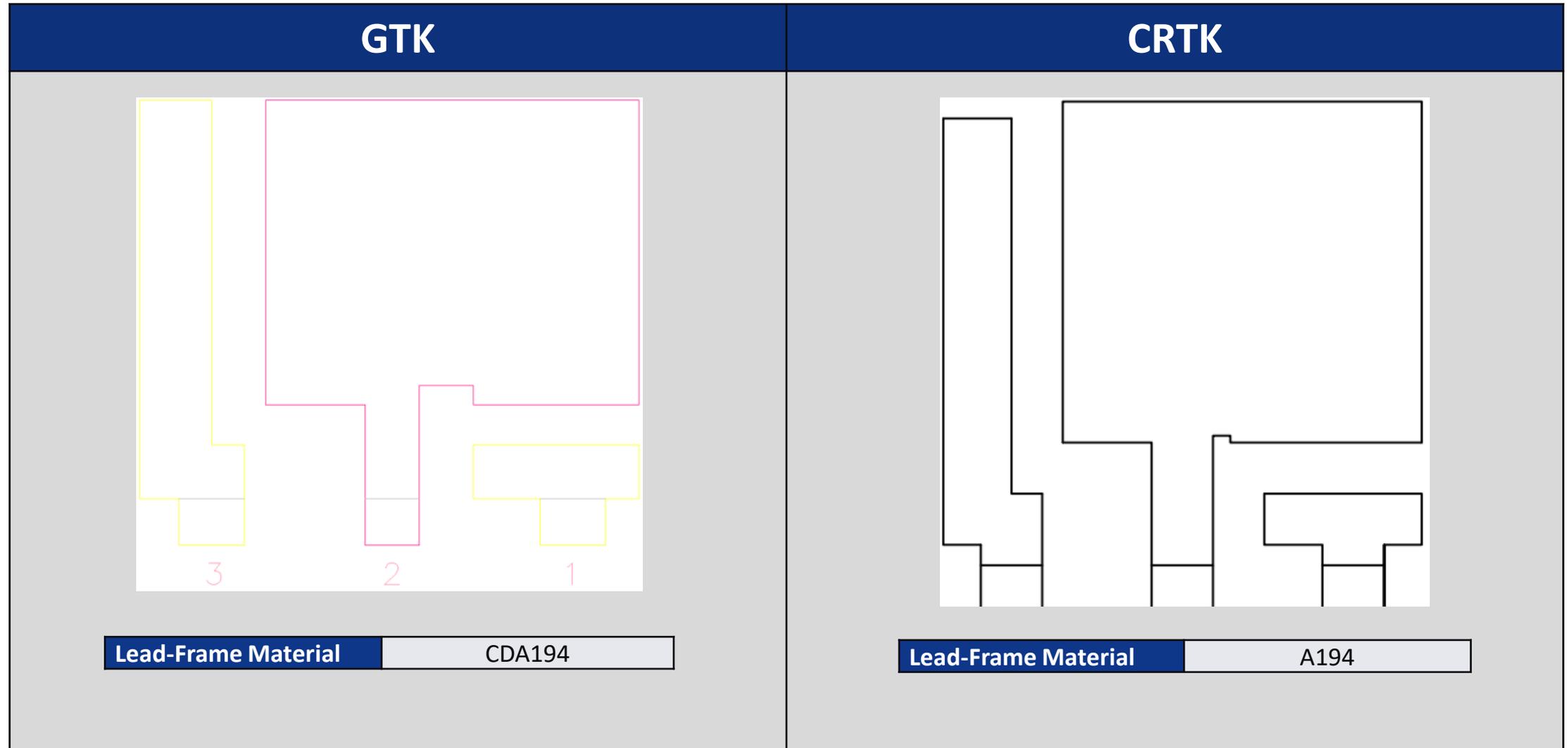
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**Qualification of a new molding compound for selected LR8Nxxx,
LR645Nxxx, LR745Nxxx, LR12Nxxx, HV992xxx and TC32Mxxx device
families available in 3L TO-92 package.**



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Lead Frame Comparison



Note: C194, A194 or CDA194 Lead frame material are the same material, these are simply a MCHP internal labelling difference.

Affected Catalog Part Numbers (CPN)

LR8N3-G
LR8N3-G-P003
LR645N3-G
LR645N3-G-P003
LR645N3-G-P013
LR745N3-G
LR745N3-G-P003
LR745N3-G-P013
LR12N3-G
HV9921N3-G
HV9922N3-G
HV9923N3-G
TC32MCZB
TC32MEZB