Product Change Notification / KSRA-29BDJE236

Date:

08-Feb-2021

Product Category:

Lens Driver ICs

PCN Type:

Manufacturing Change

Notification Subject:

CCB 4239 Final Notice: Qualification of NSEB as a new assembly site for HV892K7-G catalog part number (CPN) available in 10L WDFN (4x4x0.8mm) package.

Affected CPNs:

KSRA-29BDJE236_Affected_CPN_02082021.pdf
KSRA-29BDJE236_Affected_CPN_02082021.csv

Notification Text:

PCN Status: Final 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 NSEB as a new assembly site for HV892K7-G catalog part number (CPN) available in 10L WDFN (4x4x0.8mm) package.

Pre Change: Assembled at CARC using QMI519 die attach and EME-G770HCD mold compound material

Post Change:
Assembled at NSEB using 8600 die attach and G700LTD mold compound material.

Pre and Post Change Summary:

	Pre Change	Post Change
Assembly Site	Carsem (Suzhou) (CARC)	UTAC Thai Limited (UTL-1) LTD. (NSEB)
Wire material	Au	Au
Die attach material	QMI519	8600
Molding compound material	EME-G770HCD	G700LTD
Lead frame material	A194	A194
Lead frame paddle size	130 x 114 mils	142 x 110 mils

Impacts to Data Sheet: None

Change Impact: None

Reason for Change: To improve manufacturability by qualifying NSEB as a new assembly site.

Change Implementation Status: In Progress

Estimated First Ship Date: March 5, 2021 (date code: 2110)

NOTE: Please be advised that after the estimated first ship date customers may receive pre and post change parts.

Time Table Summary:

	July 2020					-->	February 2021				March 2021				
Workweek	27	28	29	30	31		6	7	8	9	10	11	12	13	14
Initial PCN Issue Date	X														
Qual Report Availability							X								
Final PCN Issue Date							X								
Estimated Implementation Date											X				

Method to Identify Change: Traceability code

Qualification Report: Please open the attachments included with this PCN labeled as PCN_#_Qual_Report.

Revision History:July 02, 2020: Issued initial notification.**February 8, 2021:** Issued final notification. Attached the Qualification Report. Provided estimated first ship date to be on March 5, 2021.

The change described in this PCN does not alter Microchip's current regulatory compliance regarding the material content of the applicable products.

Attachments:

PCN_KSRA-29BDJE236_Qual Report.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.

KSRA-29BDJE236 - CCB 4239 Final Notice: Qualification of NSEB as a new assembly site for HV892K7-G catalog part number (CPN) available in 10L WD

Affected Catalog Part Numbers(CPN)

HV892K7-G

FN (4x4x0.8mm) package.

QUALIFICATION REPORT SUMMARY
RELIABILITY LABORATORY

PCN #: KSRA-29BDJE236

Date:
January 29, 2021

Qualification of NSEB as a new assembly site for HV892K7-G catalog part number (CPN) available in 10L WDFN (4x4x0.8mm) package.

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PACKAGE QUALIFICATION REPORT

Purpose	Qualification of NSEB as a new assembly site for HV892K7-G catalog part number (CPN) available in 10L WDFN (4x4x0.8mm) package.
CCB No.	4239
CN	ES349748
QUAL ID	R2000832 Rev. A
MP CODE	65054TUSXA00
Part No.	HV892K7-G
Bonding No.	BDM-002573 Rev. A
Package	
Type	10L WDFN
Package size	4x4x0.8 mm
Lead Frame	
Paddle size	142 x 110 mils
Material	A194
Surface	Ag on lead only
Process	Etched
Lead Lock	Yes
Part Number	FR1616
Material	
Epoxy	8600
Wire	Au wire
Mold Compound	G700LTD
Plating Composition	Matte Sn

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PACKAGE QUALIFICATION REPORT

Manufacturing Information

Assembly Lot No.	Wafer Lot No.	Date Code
NSEB212900375.000	TMPE218309453.710	2042YQQ
NSEB213000002.000	TMPE218309453.710	2043YQW
NSEB213000003.000	TMPE218309453.710	2043YQY

Result [X] Pass [ ] Fail [ ] ____________________

10L WDFN (4x4x0.8 mm) assembled by NSEB pass reliability test per QCI-39000.This package was qualified the Moisture/Reflow Sensitivity Classification Level 1 at 260°C reflow temperature per IPC/JEDEC J-STD-020E standard.

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS	Result	Remarks
Precondition Prior Perform Reliability Tests (At MSL Level 1)	**Electrical Test:** +25°C System: TMT_HV_NT	JESD22-A113	693(0)	693		Good Devices
	Bake 150°C, 24 hrs System: CHINEE	JIP/ IPC/JEDEC J-STD-020E		693		
	85°C/85%RH Moisture Soak 168 hrs. System: TABAI ESPEC Model PR-3SPH			693		
	3x Convection-Reflow 265°C max System: Vitronics Soltec MR1243			693		
	Electrical Test: +25°C System: TMT_HV_NT			0/693	Pass	

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
Temp Cycle	**Stress Condition:** -65°C to +150°C, 500 Cycles System: TABAI ESPEC TSA-70H	JESD22-A104		231		Parts had been pre-conditioned at 260°C
	Electrical Test: + 25°C System: TMT_HV_NT		231(0)	0/231	Pass	77 units / lot
	Bond Strength: Wire Pull (> 4.00 grams)		15 (0)	0/15	Pass	
	Bond Shear (>18.00 grams)		15 (0)	0/15	Pass	
UNBIASED-HAST	**Stress Condition:** +130°C/85%RH, 96 hrs. System: HAST 6000X	JESD22-A118		231		Parts had been pre-conditioned at 260°C
	Electrical Test: +25°C System: TMT_HV_NT		231(0)	0/231	Pass	77 units / lot

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
High Temperature Storage Life	**Stress Condition:** Bake 175°C, 504 hrs System: SHEL LAB **Electrical Test:** +25°C System: TMT_HV_NT	JESD22-A103	45(0)	45 0/45	Pass	45 units
Solderability Temp 215°C	**Steam Aging:** Temp 93°C,8Hrs System: SAS-3000 Solder Dipping: Solder Temp.215°C Solder material: SnPb Sn63, Pb37 System: ERSA RA 2200D Visual Inspection: External Visual Inspection	J-STD-002	22 (0)	22 22 0/22	Pass	
Solderability Temp 245°C	**Steam Aging:** Temp 93°C,8Hrs System: SAS-3000 Solder Dipping:Solder Temp.245°C Solder material:Pb Free Sn 95.5Ag3.9 Cu0.6 System: ERSA RA 2200D Visual Inspection: External Visual Inspection	J-STD-002	22 (0)	22 22 0/22	Pass	
Wire sweep	Wire sweep Inspection 15 Wires / lot	-	45(0) Wires	0/45	Pass	
Physical Dimensions	Physical Dimension, 10 units from 1 lot	JESD22-B100/B108	30(0) Units	0/30	Pass	
Bond Strength Data Assembly	Wire Pull (> 4.00 grams)	Mil.Std. 883-2011	30 (0) Wires	0/30	Pass	
	Bond Shear (>13.00 grams)	CDF-AEC-Q100-001	30 (0) bonds	0/30	Pass	