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**FINAL PRODUCT/PROCESS CHANGE NOTIFICATION # 20599**

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**Issue Date:** 07-Aug-2014

**TITLE:** Power Switching Products (PQ) - Buck Controller Drivers on DFN 2X2 package qualification using conductive wafer back coating (WBC) epoxy in Seremban, Malaysia assembly site.

**PROPOSED FIRST SHIP DATE:** 07-Nov-2014

**AFFECTED CHANGE CATEGORY(S):** Assembly Site

**FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:**

Contact your local ON Semiconductor Sales Office or <[ernan.perez@onsemi.com](mailto:ernan.perez@onsemi.com)>

**SAMPLES:** Contact your local ON Semiconductor Sales Office

**ADDITIONAL RELIABILITY DATA:** Available

Contact your local ON Semiconductor Sales Office or <[nicky.siu@onsemi.com](mailto:nicky.siu@onsemi.com)>

**NOTIFICATION TYPE:**

Final Product/Process Change Notification (FPCN)

Final change notification sent to customers. FPCNs are issued at least 90 days prior to implementation of the change.

ON Semiconductor will consider this change approved unless specific conditions of acceptance are provided in writing within 30 days of receipt of this notice. To do so, contact <[quality@onsemi.com](mailto:quality@onsemi.com)>.

**DESCRIPTION AND PURPOSE:**

This is a Final Process Change Notice notifying customers of ON Semiconductor that Buck controller drivers (Power Switching Business Unit) built in DFN 2X2 are now qualified using conductive wafer back coating (WBC) epoxy in Seremban, Malaysia facility.

The affected devices will be using conductive epoxy at the expiration of PCN.

The full electrical characterization over temperature performed on the qualification vehicle confirmed meeting the device functionality and electrical specifications.



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**RELIABILITY DATA SUMMARY:**

**Reliability Test Results:**

**Qual Vehicle**

- NCP5901BMNTBG – DFN 2x2

#	Test	Name	Test Conditions	End Point Req's	Test Results	Lot A	Control	Remark
						(re/ ss)	(re/ ss)	
1	Prep	Sample preparation and initial part testing	various	---	Initial Electrical	Done	Done	
2	SAT	Scanning Acoustic Tomography	Compare for delamination before and after PC – MSL 1 @260°C	Per 12MSB17722C	Results	0/10	0/10	
3	PC	Moisture Preconditioning	MSL 1 @ 260°C	c = 0, Room	Post PC	-	-	Prior to TC & UHAST
4	UHAST-PC	Precond. Autoclave	TA= +130°C, RH = 85%, PSIG= 18.8, No bias	c = 0, Room	Post PC	0/80	0/80	
					96 hrs	0/80	0/80	
5	TC-PC	Precond. Temp Cycle	-65/+150°C air to air	c = 0, Room	Post PC	0/80	0/80	
					250 cys	0/80	0/80	
					500 cys	0/80	0/80	
6	RSH	Resistance to Solder Heat	JESD22 – B106 260°C Immersion	c = 0, Room	Results	0/30	0/30	
7	ED	Electrical Distribution	Per ON Datasheet Critical Parameter	Room, Hot, Cold Cpk ≥ 1.67	Results	Pass	Pass	

**ELECTRICAL CHARACTERISTIC SUMMARY:**

Electrical characteristic meet or exceeds the device specification.

**CHANGED PART IDENTIFICATION:**

NONE

**List of affected General Parts:**

- NCP5901MNTBG
- NCP5901BMNTBG
- NCP81161MNTBG
- NCP81161MNTWG
- NCP81146MNTBG
- NCP5911MNTBG
- FXS02
- NCP81145MNTBG
- NCP81151MNTBG
- NCP81051MNTBG
- NCP81166MNTBG