

# Initial Product/Process Change Notification Document #:IPCN25297X

Issue Date:09 Mar 2023

Title of Change:	Transfer wafer fabricat	Transfer wafer fabrication from Gresham to Aizu for NCD570x family of gate driver products		
Proposed First Ship date:	07 Jul 2023 or earlier if	07 Jul 2023 or earlier if approved by customer		
Contact Information:	Contact your local onse	Contact your local onsemi Sales Office or <u>David.Craig@onsemi.com</u>		
PCN Samples Contact:	Sample requests are to Initial PCN or Final PCN Samples delivery timin	Contact your local onsemi Sales Office.  Sample requests are to be submitted no later than 30 days from the date of first notification, Initial PCN or Final PCN, for this change.  Samples delivery timing will be subject to request date, sample quantity and special customer packing/label requirements.		
Type of Notification:	advance notification ab change details and dev The completed qualific Product/Process Chang Product/Process Chang	This is an Initial Product/Process Change Notification (IPCN) sent to customers. An IPCN is an advance notification about an upcoming change and contains general information regarding the change details and devices affected. It also contains the preliminary reliability qualification plan. The completed qualification and characterization data will be included in the Final Product/Process Change Notification (FPCN). This IPCN notification will be followed by a Final Product/Process Change Notification (FPCN) at least 90 days prior to implementation of the change. In case of questions, contact < <u>PCN.Support@onsemi.com&gt;</u>		
Marking of Parts/ Traceability of Change:		Part marking shows assembly site and assembly date. Assembly lot (marked on reel and shipping boxes) is traceable to source wafer fab.		
Change Category:	Assembly Change, Wa	Assembly Change, Wafer Fab Change		
Change Sub-Category(s):	Material Change, Man	Material Change, Manufacturing Site Transfer		
Sites Affected:				
onsemi Sites		External Foundry/Subcon Sites		
onsemi Aizu, Japan		None		
onsemi Carmona, Philippines				
onsemi, ISMF Malaysia				

#### **Description and Purpose:**

Change wafer fab and backgrind site from onsemi Gresham, Oregon USA to onsemi Aizu, Japan.

Change leadframe material from Ag plated Cu to Ni/Pd/Au plated Cu.

Change mold compound from EME G600 to EME G700LS.

	From	То
LeadFrame	Ag plated Cu	Ni/Pd/Au plated Cu
Mold Compound	EME G600	EME G700LS

	From	То
Fab Site	onsemi Gresham, Oregon USA	onsemi Aizu, Japan
Backgrind Site	onsemi Gresham, Oregon USA	onsemi Seremban, Malaysia (ISMF)

There is no product marking change as a result of this change.

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#### **Qualification Plan:**

**QV DEVICE NAME: NCV5700DR2G** 

RMS 088670 (HAST, HTOL, HTSL, RSH, TC, UHSAT)

AND 089114 (ELFR) **PACKAGE SOIC16** 

Test	Specification	Condition	Interval
High Temperature Operating Life	JESD22-A108	Ta= 125 °C, 100 % max rated Vcc	2016 hrs
Early Life Failure Rate	AECQ100-008	Ta= 125 °C, 100 % max rated Vcc	48 hrs
High Temperature Storage Life	JESD22-A103	Ta= 150°C	2016 hrs
Preconditioning	J-STD-020 JESD-A113	MSL 1 @ 260 °C, Pre TC, uHAST, HAST for surface mount pkgs only	
Temperature Cycling	JESD22-A104	Ta= -65 °C to + 150 °C	1000 cyc
Highly Accelerated Stress Test	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hrs
Unbiased Highly Accelerated Stress Test	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs
Resistance to Solder Heat	JESD22- B106	Ta = 265°C, 10 sec Required for through hole devices only	

#### **List of Affected Parts:**

**Note:** Only the standard (off the shelf) part numbers are listed in the parts list. Any custom parts affected by this PCN are shown in the customer specific PCN addendum in the PCN email notification, or on the PCN Customized Portal.

Part Number	Qualification Vehicle
NCD5705BDR2G	NCV5700DR2G
NCD5703CDR2G	NCV5700DR2G
NCD5703BDR2G	NCV5700DR2G
NCD5703ADR2G	NCV5700DR2G
NCD5702DR2G	NCV5700DR2G
NCD5701CDR2G	NCV5700DR2G
NCD5701BDR2G	NCV5700DR2G
NCD5701ADR2G	NCV5700DR2G
NCD5700DR2G	NCV5700DR2G

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### **Appendix A: Changed Products**

PCN#: IPCN25297X

**Issue Date: Mar 08, 2023** 

DIKG: DIGI-KEY

Product	Customer Part Number	Qualification Vehicle	New Part Number	Replacement Supplier
NCD5705BDR2G		NCV5700DR2G	NA	
NCD5703CDR2G		NCV5700DR2G	NA	
NCD5702DR2G		NCV5700DR2G	NA	
NCD5701CDR2G		NCV5700DR2G	NA	
NCD5701BDR2G		NCV5700DR2G	NA	
NCD5701ADR2G		NCV5700DR2G	NA	
NCD5700DR2G		NCV5700DR2G	NA	
NCD5703BDR2G		NCV5700DR2G	NA	
NCD5703ADR2G		NCV5700DR2G	NA	