



# Initial Product/Process Change Notification

Document #: IPCN21292XM

Issue Date: 26 Aug 2022

<b>Title of Change:</b>	Qualification of VHVIC (Very High Voltage IC) Technology at onsemi Aizu Japan - Phase 3.		
<b>Proposed First Ship date:</b>	14 Jan 2023 or earlier if approved by customer		
<b>Contact Information:</b>	Contact your local onsemi Sales Office or <a href="mailto:Scott.Brow@onsemi.com">Scott.Brow@onsemi.com</a>		
<b>PCN Samples Contact:</b>	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.		
<b>Type of Notification:</b>	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 < <a href="mailto:PCN.Support@onsemi.com">PCN.Support@onsemi.com</a> >		
<b>Marking of Parts/ Traceability of Change:</b>	Product will be identifiable by trace codes and lot numbers associated with the product. onsemi cannot lot combine product from (2) different wafer FABs on the same reel of product.		
<b>Change Category:</b>	Wafer Fab Change		
<b>Change Sub-Category(s):</b>	Manufacturing Site Addition		
<b>Sites Affected:</b>			
<b>onsemi Sites</b>		<b>External Foundry/Subcon Sites</b>	
onsemi Aizu, Japan		None	
<b>Description and Purpose:</b>			
<p>onsemi would like to notify its customers of the qualification of our Very High Voltage IC (VHVIC) Technology at our onsemi Aizu, Japan FAB.</p> <p>This qualification enables expanded capacity for this technology.</p> <p>All products listed in this IPCN may be dual sourced from either the current onsemi wafer FAB in Gresham, OR US or onsemi Aizu, Japan.</p> <p>This is the latest PCN associated with this change.</p> <p>This technology was previously qualified into Aizu and has been running at these FAB for &gt; 5 years for other products in this technology.</p> <p>Reference FPCN21292X-FPCN21292XL for previous notifications on this equivalent change.</p>			
	<b>Before Change Description</b>	<b>After Change Description</b>	
<b>FAB</b>	onsemi Gresham, USA	onsemi Aizu, Japan	onsemi Gresham, USA
There are no product material changes as a result of this change.			
There is no product marking change as a result of this change.			



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## Qualification Plan:

**QV DEVICE NAME:** NCP1236BD65R2G

**PACKAGE:** SOIC 8 (Less Pin 7)

**RMS#:** P31397, O30920

Test	Specification	Condition	Interval	Results
HTOL	JESD22-A108	Ta=125°C, 500V	1000 hrs	0/231
HTSL	JESD22-A103	Ta= 150°C	1000 hrs	0/231
PC-TC	JESD22-A104	Ta= -65°C to +150°C	500 cyc	0/231
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hrs	0/231
PC-uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/231
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C		0/693

**QV DEVICE NAME:** NCP1396ADR2G

**PACKAGE:** SOIC-16

**RMS#:** P31418, O36903, O37701

Test	Specification	Condition	Interval	Results
HTOL	JESD22-A108	Ta=125°C, 600V	1000 hrs	0/231
HTSL	JESD22-A103	Ta= 150°C	1000 hrs	0/231
PC-TC	JESD22-A104	Ta= -65°C to +150°C	500 cyc	0/231
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hrs	0/231
PC-uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/231
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C		0/693

**QV DEVICE NAME:** NCP1399AADR2G

**PACKAGE:** SOIC-16

**RMS#:** P31421

Test	Specification	Condition	Interval	Results
HTOL	JESD22-A108	Ta=125°C, 600V	1000 hrs	0/77

**QV DEVICE NAME:** NCP1615C3DR2G

**PACKAGE:** SOIC-16 (Less Pin 15)

**RMS#:** P31422

Test	Specification	Condition	Interval	Results
HTOL	JESD22-A108	Ta=125°C, 700V	1000 hrs	0/77



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**QV DEVICE NAME:** NCP1380BDR2G

**PACKAGE:** SOIC-8

**RMS#:** O32111

Test	Specification	Condition	Interval	Results
HTOL	JESD22-A108	Ta=125°C, 30V	1000 hrs	0/77

**QV DEVICE NAME:** NCP4304ADR2G

**PACKAGE:** SOIC-8

**RMS#:** P31423, O35972

Test	Specification	Condition	Interval	Results
HTOL	JESD22-A108	Ta=125°C, 200V	1000 hrs	0/231
HTSL	JESD22-A103	Ta= 150°C	1000 hrs	0/231
PC-TC	JESD22-A104	Ta= -65°C to +150°C	500 cyc	0/231
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hrs	0/231
PC-uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/231
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C		0/693

**QV DEVICE NAME:** NCP1076P065G

**PACKAGE:** PDIP-8 (Less Pin 7)

**RMS#:** P39367, O39368

Test	Specification	Condition	Interval	Results
HTOL	JESD22-A108	Ta=125°C, 200V	1000 hrs	0/240
HTSL	JESD22-A103	Ta= 150°C	1000 hrs	0/240
TC	JESD22-A104	Ta= -65°C to +150°C	500 cyc	0/240
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hrs	0/240
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/240

**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
NCP1034DR2G	NCP1396ADR2G
NCP1606ADR2G	NCP1236BD65R2G, NCP1380BDR2G
NCP1606BDR2G	NCP1236BD65R2G, NCP1380BDR2G
NCP5106ADR2G	NCP1396ADR2G
NCP5106BDR2G	NCP1396ADR2G
NCP5109ADR2G	NCP1396ADR2G



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NCP5109BDR2G	NCP1396ADR2G
NCP5111DR2G	NCP1396ADR2G
NCP5304DR2G	NCP1396ADR2G
NCL30001DR2G	NCP1236BD65R2G, NCP1380BDR2G
NCP1562ADR2G	NCP1236BD65R2G
NCP1562BDR2G	NCP1236BD65R2G
NCP5104DR2G	NCP1396ADR2G
NCL30059BDR2G	NCP1396ADR2G
NCP1392BDR2G	NCP1396ADR2G
NCP1392DDR2G	NCP1396ADR2G
NCP1393BDR2G	NCP1396ADR2G
NCP4303ADR2G	NCP4304ADR2G
NCP1910B65DWR2G	NCP1396ADR2G
NCP1236DD65R2G	NCP1236BD65R2G
NCP1937A2DR2G	NCP1399AADR2G
NCP1937A3DR2G	NCP1399AADR2G
NCP1937B1DR2G	NCP1399AADR2G
NCP1937B3DR2G	NCP1399AADR2G
NCP1937B51DR2G	NCP1399AADR2G
NCP1937C4DR2G	NCP1399AADR2G
NCP1937C61DR2G	NCP1399AADR2G
NCP1632ADR2G	NCP1236BD65R2G, NCP1380BDR2G
NCP1632DR2G	NCP1236BD65R2G, NCP1380BDR2G
NCP5183DR2G	NCP1396ADR2G
NCP1240AD100R2G	NCP1236BD65R2G
NCL30030B3DR2G	NCP1236BD65R2G, NCP1399AADR2G
NCP1071STBT3G	NCP1076P065G
NCP1339HDR2G	NCP1399AADR2G
NCP1616A2DR2G	NCP1615C3DR2G
NCP1616A1DR2G	NCP1615C3DR2G
NCL30060BDR2G	NCP1399AADR2G
NCL30060B2DR2G	NCP1399AADR2G
NCP1562ADBR2G	NCP1236BD65R2G

**Appendix A: Changed Products**

**PCN#: IPCN21292XM**  
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DIKG: DIGI-KEY

Product	Customer Part Number	Qualification Vehicle	New Part Number	Replacement Supplier
NCP1034DR2G		NCP1396ADR2G		
NCP1606ADR2G		NCP1236BD65R2G, NCP1380BDR2G		
NCP5106ADR2G		NCP1396ADR2G		
NCP5106BDR2G		NCP1396ADR2G		
NCP5109ADR2G		NCP1396ADR2G		
NCP5109BDR2G		NCP1396ADR2G		
NCP5111DR2G		NCP1396ADR2G		
NCP5304DR2G		NCP1396ADR2G		
NCL30001DR2G		NCP1236BD65R2G, NCP1380BDR2G		
NCP1562ADR2G		NCP1236BD65R2G		
NCP1562BDR2G		NCP1236BD65R2G		
NCP5104DR2G		NCP1396ADR2G		
NCP1392DDR2G		NCP1396ADR2G		
NCP1393BDR2G		NCP1396ADR2G		
NCP4303ADR2G		NCP4304ADR2G		
NCP1392BDR2G		NCP1396ADR2G		
NCP1236DD65R2G		NCP1236BD65R2G		
NCP1937B1DR2G		NCP1399AADR2G		
NCP1910B65DWR2G		NCP1396ADR2G		
NCP5183DR2G		NCP1396ADR2G		
NCL30030B3DR2G		NCP1236BD65R2G, NCP1399AADR2G		
NCP1632DR2G		NCP1236BD65R2G, NCP1380BDR2G		
NCP1616A2DR2G		NCP1615C3DR2G		
NCP1339HDR2G		NCP1399AADR2G		
NCL30060BDR2G		NCP1399AADR2G		
NCP1616A1DR2G		NCP1615C3DR2G		
NCL30060B2DR2G		NCP1399AADR2G		