



## Final Product/Process Change Notification

Document #:FPCN25451X

Issue Date:02 Apr 2024

<b>Title of Change:</b>	Qualification of onsemi Aizu Japan as wafer Fab for ONC25 Technology for select products from NCS20061, NCS20081, NCS20091 and NCS20062, NCS20082, NCS20092.	
<b>Proposed First Ship date:</b>	09 Jul 2024 or earlier if approved by customer	
<b>Contact Information:</b>	Contact your local onsemi Sales Office or <a href="mailto:Adrian.Croitoru@onsemi.com">Adrian.Croitoru@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>Additional Reliability Data:</b>	Contact your local onsemi Sales Office or <a href="mailto:Vladislav.Hrachovec@onsemi.com">Vladislav.Hrachovec@onsemi.com</a>	
<b>Type of Notification:</b>	This is a Final Product/Process Change Notification (FPCN) sent to customers. FPCNs are issued 90 days prior to implementation of the change. onsemi will consider this change accepted, unless an inquiry is made in writing within 30 days of delivery of this notice. To do so, contact <a href="mailto:PCN.Support@onsemi.com">PCN.Support@onsemi.com</a>	
<b>Marking of Parts/ Traceability of Change:</b>	Custom source information will be updated on product label. Product traceability will be identified by encoded date code.	
<b>Change Category:</b>	Assembly Change, Wafer Fab Change	
<b>Change Sub-Category(s):</b>	Manufacturing Site Addition, Material Change	
<b>Sites Affected:</b>		
<b>onsemi Sites</b>	<b>External Foundry/Subcon Sites</b>	
onsemi Aizu, Japan	UTAC, Thailand	
onsemi Carmona, Philippines		
onsemi Seremban, Malaysia		
<b>Description and Purpose:</b>		
<p>onsemi would like to inform its customers of qualification of an additional wafer fabrication facility for ONC25 technology at onsemi Aizu, Japan for the devices listed in this FPCN, and wire conversion from Au to Pd-Coated Copper (PCC). All products listed here will be dual sourced from onsemi Gresham and onsemi Aizu.</p> <p>There is no change to the orderable part number.</p> <p>There is no product marking change as a result of this notification.</p> <p>No changes to part specification or datasheet are anticipated.</p>		
<b>NCS20061.NCS20081.NCS20091 Products – All packages</b>	<b>From</b>	<b>To</b>
<b>Wafer Fab</b>	onsemi, Gresham, Oregon (US)	onsemi, Gresham, Oregon (US); onsemi, Aizu (Japan)
<b>Bond Wire</b>	0.8mil Au	0.8mil Pd-Coated Copper (PCC)



## Final Product/Process Change Notification

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NCS20062.NCS20082.NCS20092 Products -under SOIC-8 and TSSOP-8 packages	From	To
Wafer Fab	onsemi, Gresham, Oregon (US)	onsemi, Gresham, Oregon (US); onsemi, Aizu (Japan)
Bond Wire	0.8mil Au	1mil Pd-Coated Copper (PCC)

NCS20062.NCS20082.NCS20092 Products under MICRO-8 package	From	To
Wafer Fab	onsemi, Gresham, Oregon (US)	onsemi, Gresham, Oregon (US); onsemi, Aizu (Japan)
Bond Wire	1mil Au	1mil Pd-Coated Copper (PCC)

### Reliability Data Summary:

QV DEVICE NAME: NCS20061MUTAG

RMS: S90292

PACKAGE: UDFN-6

Test	Specification	Condition	Interval	Results
High Temperature Operating Life	JESD22-A108	Ta=125°C, 100 % max rated Vcc	1008 hrs	0/80
High Temperature Storage Life	JESD22-A103	Ta= 150°C	1008 hrs	0/240
Preconditioning	J-STD-020 JESD-A113	MSL 1 @ 260°C, Pre TC, uHAST, HAST for surface mount pkgs only		0/all
Temperature Cycling	JESD22-A104	Ta= -55°C to +150°C	1000 cyc	0/240
Highly Accelerated Stress Test	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hrs	0/240
Unbiased Highly Accelerated Stress Test	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/240
Solderability	J-STD-002	Ta = 245°C, 5 sec	-	0/45
Electrical Distribution	onsemi DataSheet	Cpk ≥ 1.67, Test @ R & C & H	-	0/90

QV DEVICE NAME: NCS20061SN2T1G

RMS: S90295

PACKAGE: TSOP-5

Test	Specification	Condition	Interval	Results
High Temperature Operating Life	JESD22-A108	Ta=125°C, 100 % max rated Vcc	1008 hrs	0/80
High Temperature Storage Life	JESD22-A103	Ta= 150°C	1008 hrs	0/240
Preconditioning	J-STD-020 JESD-A113	MSL 1 @ 260°C, Pre TC, uHAST, HAST for surface mount pkgs only		0/all
Temperature Cycling	JESD22-A104	Ta= -55°C to +150°C	1000 cyc	0/240
Highly Accelerated Stress Test	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hrs	0/240
Unbiased Highly Accelerated Stress Test	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/240
Solderability	J-STD-002	Ta = 245°C, 5 sec	-	0/45
Electrical Distribution	onsemi DataSheet	Cpk ≥ 1.67, Test @ R & C & H	-	0/90



## Final Product/Process Change Notification

Document #:FPCN25451X

Issue Date:02 Apr 2024

**QV DEVICE NAME: NCS20061SQ3T2G**

**RMS: S90294**

**PACKAGE: SC-88A**

Test	Specification	Condition	Interval	Results
High Temperature Operating Life	JESD22-A108	Ta=125°C, 100 % max rated Vcc	1008 hrs	0/80
High Temperature Storage Life	JESD22-A103	Ta= 150°C	1008 hrs	0/240
Preconditioning	J-STD-020 JESD-A113	MSL 1 @ 260°C, Pre TC, uHAST, HAST for surface mount pkgs only		0/all
Temperature Cycling	JESD22-A104	Ta= -55°C to +150°C	1000 cyc	0/240
Highly Accelerated Stress Test	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hrs	0/240
Unbiased Highly Accelerated Stress Test	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/240
Solderability	J-STD-002	Ta = 245°C, 5 sec	-	0/45
Electrical Distribution	onsemi DataSheet	Cpk ≥ 1.67, Test @ R & C & H	-	0/90

**QV DEVICE NAME: NCS20062DR2G**

**RMS: O90248, O90249, O90250, O90252**

**PACKAGE: SOIC-8**

Test	Specification	Condition	Interval	Results
High Temperature Operating Life	JESD22-A108	Ta=125°C, 100 % max rated Vcc	1008 hrs	0/240
High Temperature Storage Life	JESD22-A103	Ta= 150°C	1008 hrs	0/240
Preconditioning	J-STD-020 JESD-A113	MSL 1 @ 260°C, Pre TC, uHAST, HAST for surface mount pkgs only		0/all
Temperature Cycling	JESD22-A104	Ta= -55°C to +150°C	1000 cyc	0/240
Highly Accelerated Stress Test	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hrs	0/240
Unbiased Highly Accelerated Stress Test	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/240
Solderability	J-STD-002	Ta = 245°C, 5 sec	-	0/45
Electrical Distribution	onsemi DataSheet	Cpk ≥ 1.67, Test @ R & C & H	-	0/90

**QV DEVICE NAME: NCS20062DTBR2G**

**RMS: O90255**

**PACKAGE: TSSOP-8**

Test	Specification	Condition	Interval	Results
High Temperature Storage Life	JESD22-A103	Ta= 150°C	1008 hrs	0/240
Preconditioning	J-STD-020 JESD-A113	MSL 1 @ 260°C, Pre TC, uHAST, HAST for surface mount pkgs only		0/all
Temperature Cycling	JESD22-A104	Ta= -55°C to +150°C	1000 cyc	0/240
Highly Accelerated Stress Test	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hrs	0/240
Unbiased Highly Accelerated Stress Test	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/240
Solderability	J-STD-002	Ta = 245°C, 5 sec	-	0/45
Electrical Distribution	onsemi DataSheet	Cpk ≥ 1.67, Test @ R & C & H	-	0/30



## Final Product/Process Change Notification

Document #:FPCN25451X

Issue Date:02 Apr 2024

**QV DEVICE NAME:** NCS20062DMR2G

**RMS:** S90251

**PACKAGE:** MICRO-8

Test	Specification	Condition	Interval	Results
High Temperature Storage Life	JESD22-A103	Ta= 150°C	1008 hrs	0/240
Preconditioning	J-STD-020 JESD-A113	MSL 1 @ 260°C, Pre TC, uHAST, HAST for surface mount pkgs only		0/all
Temperature Cycling	JESD22-A104	Ta= -55°C to +150°C	1000 cyc	0/240
Highly Accelerated Stress Test	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hrs	0/240
Unbiased Highly Accelerated Stress Test	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/240
Solderability	J-STD-002	Ta = 245°C, 5 sec	-	0/45
Electrical Distribution	onsemi DataSheet	Cpk ≥ 1.67, Test @ R & C & H	-	0/30

### Electrical Characteristics Summary:

Electrical characteristics are not impacted.

### 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
NCS20081SQ2T2G	NCS20061SQ3T2G
NCS20081SQ3T2G	NCS20061SQ3T2G
NCS20061SQ3T2G	NCS20061SQ3T2G
NCS20092DTBR2G	NCS20062DTBR2G
NCS20092DR2G	NCS20062DR2G
NCS20092DMR2G	NCS20062DMR2G
NCS20082DTBR2G	NCS20062DTBR2G
NCS20082DR2G	NCS20062DR2G
NCS20082DMR2G	NCS20062DMR2G
NCS20062DTBR2G	NCS20062DTBR2G
NCS20062DR2G	NCS20062DR2G
NCS20062DMR2G	NCS20062DMR2G
NCS20091SQ3T2G	NCS20061SQ3T2G
NCS20091SN2T1G	NCS20061SN2T1G
NCS20091SN3T1G	NCS20061SN2T1G



## Final Product/Process Change Notification

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Issue Date:02 Apr 2024

NCS20091MUTAG	NCS20061MUTAG
NCS20081SN2T1G	NCS20061SN2T1G
NCS20081SN3T1G	NCS20061SN2T1G
NCS20081MUTAG	NCS20061MUTAG
NCS20061SN2T1G	NCS20061SN2T1G
NCS20061SN3T1G	NCS20061SN2T1G
NCS20061MUTAG	NCS20061MUTAG

## Appendix A: Changed Products

PCN#: FPCN25451X  
Issue Date: Apr 02, 2024

DIKG: DIGI-KEY

Product	Customer Part Number	Qualification Vehicle	New Part Number	Replacement Supplier
NCS20081SQ2T2G		NCS20061SQ3T2G	#NONE	
NCS20061SQ3T2G		NCS20061SQ3T2G	#NONE	
NCS20092DTBR2G		NCS20062DTBR2G	#NONE	
NCS20092DR2G		NCS20062DR2G	#NONE	
NCS20092DMR2G		NCS20062DMR2G	#NONE	
NCS20082DTBR2G		NCS20062DTBR2G	#NONE	
NCS20082DR2G		NCS20062DR2G	#NONE	
NCS20082DMR2G		NCS20062DMR2G	#NONE	
NCS20062DTBR2G		NCS20062DTBR2G	#NONE	
NCS20062DR2G		NCS20062DR2G	#NONE	
NCS20062DMR2G		NCS20062DMR2G	#NONE	
NCS20091SQ3T2G		NCS20061SQ3T2G	#NONE	
NCS20091SN2T1G		NCS20061SN2T1G	#NONE	
NCS20091SN3T1G		NCS20061SN2T1G	#NONE	
NCS20091MUTAG		NCS20061MUTAG	#NONE	
NCS20081SN2T1G		NCS20061SN2T1G	#NONE	
NCS20081SN3T1G		NCS20061SN2T1G	#NONE	
NCS20081MUTAG		NCS20061MUTAG	#NONE	
NCS20061SN2T1G		NCS20061SN2T1G	#NONE	
NCS20061SN3T1G		NCS20061SN2T1G	#NONE	
NCS20061MUTAG		NCS20061MUTAG	#NONE	
NCS20081SQ3T2G		NCS20061SQ3T2G	#NONE	