



# Final Product/Process Change Notification

Document #:FPCN24820X

Issue Date:14 Nov 2023

<b>Title of Change:</b>	ACMOS1 and ACMOS2 fab process qualification at onsemi Aizu fab location.
<b>Proposed First Ship date:</b>	19 Feb 2024 or earlier if approved by customer
<b>Contact Information:</b>	Contact your local onsemi Sales Office or <a href="mailto:Don.Beeman@onsemi.com">Don.Beeman@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>	There is no product marking change as a result of this change.
<b>Change Category:</b>	Wafer Fab Change
<b>Change Sub-Category(s):</b>	Manufacturing Site Addition

**Sites Affected:**

**onsemi Sites**

onsemi Aizu, Japan

**External Foundry/Subcon Sites**

None

**Description and Purpose:**

onsemi would like to inform its customers of qualification of a wafer fabrication facility for ACMOS1/2 technology at onsemi Aizu, Japan for the devices listed in this FPCN. All products listed here will be dual sourced from onsemi Gresham and onsemi Aizu.

There is no change to the orderable part number.

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

	From	To
Fab Site	onsemi Gresham	onsemi Gresham, onsemi Aizu



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## Reliability Data Summary:

**QV DEVICE NAME: NCV2002SN2T1G**

**RMS: S87406, S90287**

**PACKAGE: TSOP-6**

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
Early Life Failure Rate	JESD22-A108	Ta=125°C, 100 % max rated Vcc	48 hrs	0/2400
Preconditioning	J-STD-020 JESD-A113	MSL1 @ 260°C, Pre TC, uHAST, HAST for surface mount pkgs only		0/240
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
ESD Human Body Model	JS-001	Test @ Room & Hot before/after the stress	1500V	0/3
ESD Charge Device Model	JS-002	Test @ Room & Hot before/after the stress	1000	0/3
Latch Up	JESD78	Dynamic Latch-up Class II; Test @ Room & Hot before/after the stress	LU+>100mA LU->100mA	0/6
Electrical Distribution	onsemi DataSheet	Cpk ≥ 1.67; Test @ Room & Hot & Cold	Electrical	0/90

**QV DEVICE NAME: NCS2202SQ2T2G**

**RMS: S90287, S87406**

**PACKAGE: SC-70-5**

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
Early Life Failure Rate	JESD22-A108	Ta=125°C, 100 % max rated Vcc	48 hrs	0/2400
Preconditioning	J-STD-020 JESD-A113	MSL1 @ 260°C, Pre TC, uHAST, HAST for surface mount pkgs only		0/240
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
ESD Human Body Model	JS-001	Test @ Room & Hot before/after the stress	2000V	0/3
ESD Charge Device Model	JS-002	Test @ Room & Hot before/after the stress	1000	0/3
Latch Up	JESD78	Dynamic Latch-up Class II; Test @ Room & Hot before/after the stress	LU+>100mA LU->100mA	0/6
Electrical Distribution	onsemi DataSheet	Cpk ≥ 1.67; Test @ Room & Hot & Cold	Electrical	0/90



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**QV DEVICE NAME: NCV500SN33T1G**

**RMS: S87403, S87406**

**PACKAGE: TSOP-5**

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
Early Life Failure Rate	JESD22-A108	Ta=125°C, 100 % max rated Vcc	48 hrs	0/2400
Preconditioning	J-STD-020 JESD-A113	MSL1 @ 260°C, Pre TC, uHAST, HAST for surface mount pkgs only		0/240
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
ESD Human Body Model	JS-001	Test @ Room & Hot before/after the stress	2000V	0/3
ESD Charge Device Model	JS-002	Test @ Room & Hot before/after the stress	1000	0/3
Latch Up	JESD78	Dynamic Latch-up Class II; Test @ Room & Hot before/after the stress	LU+>100mA LU->100mA	0/6
Electrical Distribution	onsemi DataSheet	Cpk ≥ 1.67; Test @ Room & Hot & Cold	Electrical	0/90

**QV DEVICE NAME: NCV551SN33T1G**

**RMS: S87404, S87406**

**PACKAGE: TSOP-5**

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
Early Life Failure Rate	JESD22-A108	Ta=125°C, 100 % max rated Vcc	48 hrs	0/2400
Preconditioning	J-STD-020 JESD-A113	MSL1 @ 260°C, Pre TC, uHAST, HAST for surface mount pkgs only		0/240
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
ESD Human Body Model	JS-001	Test @ Room & Hot before/after the stress	2000V	0/3
ESD Charge Device Model	JS-002	Test @ Room & Hot before/after the stress	1000	0/3
Latch Up	JESD78	Dynamic Latch-up Class II; Test @ Room & Hot before/after the stress	LU+>100mA LU->100mA	0/6
Electrical Distribution	onsemi DataSheet	Cpk ≥ 1.67; Test @ Room & Hot & Cold	Electrical	0/90



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**QV DEVICE NAME: NCV8690MN33T2G**

**RMS: S85163, S91007**

**PACKAGE: DFN6 3x3mm**

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
Early Life Failure Rate	JESD22-A108	Ta=125°C, 100 % max rated Vcc	48 hrs	0/2400
Preconditioning	J-STD-020 JESD-A113	MSL1 @ 260°C, Pre TC, uHAST, HAST for surface mount pkgs only		0/240
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
ESD Human Body Model	JS-001	Test @ Room & Hot before/after the stress	2000V	0/3
ESD Charge Device Model	JS-002	Test @ Room & Hot before/after the stress	1000	0/3
Latch Up	JESD78	Dynamic Latch-up Class II; Test @ Room & Hot before/after the stress	LU+>100mA LU->100mA	0/6
Electrical Distribution	onsemi DataSheet	Cpk ≥ 1.67; Test @ Room & Hot & Cold	Electrical	0/90

**QV DEVICE NAME: NCV303LSN45T1G**

**RMS: S85160, S91007**

**PACKAGE: TSOP-5**

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
Early Life Failure Rate	JESD22-A108	Ta=125°C, 100 % max rated Vcc	48 hrs	0/2400
Preconditioning	J-STD-020 JESD-A113	MSL1 @ 260°C, Pre TC, uHAST, HAST for surface mount pkgs only		0/240
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
ESD Human Body Model	JS-001	Test @ Room & Hot before/after the stress	2000V	0/3
ESD Charge Device Model	JS-002	Test @ Room & Hot before/after the stress	1000	0/3
Latch Up	JESD78	Dynamic Latch-up Class II; Test @ Room & Hot before/after the stress	LU+>100mA LU->100mA	0/6
Electrical Distribution	onsemi DataSheet	Cpk ≥ 1.67; Test @ Room & Hot & Cold	Electrical	0/90



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### 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
NCP551SN27T1G	NCV551SN33T1G
NCP551SN25T1G	NCV551SN33T1G
NCP551SN15T1G	NCV551SN33T1G
NCP512SQ13T2G	NCV551SN33T1G
MC78LC50NTRG	NCV551SN33T1G
MC78LC33NTRG	NCV551SN33T1G
MC78LC30NTRG	NCV551SN33T1G
MC78LC18NTRG	NCV551SN33T1G
NCP698SQ15T1G	NCV551SN33T1G
NCP698SQ25T1G	NCV551SN33T1G
NCP698SQ33T1G	NCV551SN33T1G
NCP500SN33T1G	NCV500SN33T1G
NCP500SN30T1G	NCV500SN33T1G
NCP500SN25T1G	NCV500SN33T1G
NCP500SN18T1G	NCV500SN33T1G
NCS3402DR2G	NCV303LSN45T1G
NCP1421DMR2G	NCP1421DMR2G
NCP1422MNR2G	NCP1421DMR2G
NCP1423DMR2G	NCP1421DMR2G
NCS2202SN2T1G	NCS2202SQ2T2G
NCS2200SQ2T2G	NCS2202SQ2T2G
NCS2200SN2T1G	NCS2202SQ2T2G
NCS2200SN1T1G	NCS2202SQ2T2G
NCS2202SN1T1G	NCS2202SQ2T2G
NCS2202SQ1T2G	NCS2202SQ2T2G
NCS2202SQ2T2G	NCS2202SQ2T2G



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NCS7101SN2T1G	NCS2202SQ2T2G
NCS7101SN1T1G	NCS2202SQ2T2G
MC78LC25NTRG	NCV551SN33T1G
NCP551SN18T1G	NCV551SN33T1G
NCP662SQ25T1G	NCV551SN33T1G
NCP662SQ27T1G	NCV551SN33T1G
NCP662SQ28T1G	NCV551SN33T1G
NCP662SQ30T1G	NCV551SN33T1G
NCP662SQ50T1G	NCV551SN33T1G
NCP663SQ27T1G	NCV551SN33T1G
NCP663SQ28T1G	NCV551SN33T1G
NCP698SQ13T1G	NCV551SN33T1G
NCP698SQ18T1G	NCV551SN33T1G
NCP698SQ28T1G	NCV551SN33T1G
NCP698SQ30T1G	NCV551SN33T1G
NCP698SQ35T1G	NCV551SN33T1G
NCP699SN18T1G	NCV551SN33T1G
NCP699SN29T1G	NCV551SN33T1G
NCP699SN30T1G	NCV551SN33T1G
NCP699SN33T1G	NCV551SN33T1G
NCP699SN34T1G	NCV551SN33T1G
NCP699SN50T1G	NCV551SN33T1G
NCP612SQ31T2G	NCV551SN33T1G
NCP553SQ27T1G	NCV551SN33T1G
NCS2220AMUT1G	NCV8690MN33T2G
NCS2200AMUT1G	NCV8690MN33T2G
NCS2001SN2T1G	NCV8690MN33T2G
NCP600SN330T1G	NCV8690MN33T2G
NCP600SNADJT1G	NCV8690MN33T2G
NCP603SN180T1G	NCV8690MN33T2G
NCP603SN300T1G	NCV8690MN33T2G
NCP606MN28T2G	NCV8690MN33T2G
NCP562SQ18T1G	NCV551SN33T1G
NCP563SQ33T1G	NCV551SN33T1G



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NCP571MN08TBG	NCV551SN33T1G
NCP571MN12TBG	NCV551SN33T1G
NCP612SQ18T2G	NCV551SN33T1G
NCP612SQ30T2G	NCV551SN33T1G
NCP603SN330T1G	NCV8690MN33T2G
NCP603SNADJT1G	NCV8690MN33T2G
NCP605MN28T2G	NCV8690MN33T2G
NCP606MN33T2G	NCV8690MN33T2G
NCP606MN50T2G	NCV8690MN33T2G
NCP606MNADJT2G	NCV8690MN33T2G
NCP690MN15T2G	NCV8690MN33T2G
NCP690MN33T2G	NCV8690MN33T2G
NCP690MNADJT2G	NCV8690MN33T2G
NCP691MN33T2G	NCV8690MN33T2G
NCP692MN33T2G	NCV8690MN33T2G
NCS2001SN1T1G	NCV8690MN33T2G
NCS2001SQ2T2G	NCV8690MN33T2G
NCS2202AMUTBG	NCV8690MN33T2G
NCP551SN28T1G	NCV551SN33T1G
NCP551SN30T1G	NCV551SN33T1G
NCP551SN33T1G	NCV551SN33T1G
NCP551SN50T1G	NCV551SN33T1G
NCP553SQ30T1G	NCV551SN33T1G
NCP553SQ33T1G	NCV551SN33T1G
NCP553SQ50T1G	NCV551SN33T1G