



Initial Product/Process Change Notification

Document #: IPCN24820X

Issue Date: 29 Sep 2022

Title of Change:	ACMOS1 and ACMOS2 fab process qualification at onsemi Aizu fab location.
Proposed First Ship date:	01 Sep 2023 or earlier if approved by customer
Contact Information:	Contact your local onsemi Sales Office or Don.Beeman@onsemi.com
PCN Samples Contact:	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:	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 < PCN.Support@onsemi.com >
Marking of Parts/ Traceability of Change:	There is no product marking change as a result of this change.
Change Category:	Wafer Fab Change
Change Sub-Category(s):	Manufacturing Site Addition

Sites Affected:

onsemi Sites	External Foundry/Subcon Sites
onsemi Aizu, Japan	None
onsemi, Gresham United States	

Description and Purpose:

	From	To
Fab Locations	onsemi, Gresham	onsemi Aizu, onsemi Gresham

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

Qualification Plan:

QV DEVICE NAME: NCS2202SQ2T2G

PACKAGE: 0535 | SC-70 5 EPOXY LDIE PBFR

Test	Specification	Condition	Interval
HTOL	JA108	TA=125C, bias at 1.2X Nominal (not to exceed Max rated)	1008 hrs
HTSL	JESD22-A103	Ta= 150°C	1008 hrs
PC	J STD 020A, JESD22-A113	IR reflow at 245C or 260C (pkg dependant)	
HAST + PC	JESD22-A110	Ta= 130°C, 85% RH, ~18.8 psig, bias = 100% of rated V or 100V max	96 hrs
TC + PC	JESD22-A104	Temp = -55°C to +150°C; for 1000 cycles (or equivalent)	1000 cyc
uHAST + PC	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs
SAT	12MSB17722C	12MSB17722C	
ESD	12MSB17722C	HBM	3 lots
ESD	12MSB17722C	CDM	3 lots
LU	JESD78 Class I, AEC Q100-004	-LU, +LU	3 lots



Initial Product/Process Change Notification

Document #: IPCN24820X

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QV DEVICE NAME : NCV500SN33T1G
PACKAGE : 0670 | TSOP 5 EPOXY MATRIX PBFR

Test	Specification	Condition	Interval
HTOL	JA108	TA=125C, bias at 1.2X Nominal (not to exceed Max rated)	2016 hrs
HTSL	JESD22-A103	Ta= 150°C	2016 hrs
PC	J STD 020A, JESD22-A113	IR reflow at 245C or 260C (pkg dependant)	
HAST + PC	JESD22-A110	Ta= 130°C, 85% RH, ~18.8 psig, bias = 100% of rated V or 100V max	96 hrs
TC + PC	JESD22-A104	Temp = -55°C to +150°C; for 1000 cycles (or equivalent)	1000 cyc
uHAST + PC	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs
SAT	12MSB17722C	12MSB17722C	3 lots
DPA	AEC-Q101-004 Section 4	Post 1X TC	3 lots
CDPA BS	12MSB17722C	Post TC	3 lots
CDPA WP	12MSB17722C	Post TC	3 lots
CDPA X Section	12MSB17722C	Post TC	3 lots
CDPA Xray	12MSB17722C	Post TC	3 lots
Shift	12MSB17722C, AEC-Q100-009	Post 1X HTOL TC	3 lots
ESD	12MSB17722C	HBM	3 lots
ESD	12MSB17722C	CDM	3 lots
LU	JESD78 Class I, AEC Q100-004	-LU, +LU	3 lots

QV DEVICE NAME : NCV551SN33T1G
PACKAGE: 0670 | TSOP 5 EPOXY MATRIX PBFR

Test	Specification	Condition	Interval
HTOL	JA108	TA=125C, bias at 1.2X Nominal (not to exceed Max rated)	2016 hrs
HTSL	JESD22-A103	Ta= 150°C	2016 hrs
ELFR	AECQ100-008	TA=125C, bias at 1.2X Nominal (not to exceed Max rated)	48 hrs
PC	J STD 020A, JESD22-A113	IR reflow at 245C or 260C (pkg dependant)	
HAST + PC	JESD22-A110	Ta= 130°C, 85% RH, ~18.8 psig, bias = 100% of rated V or 100V max	96 hrs
TC + PC	JESD22-A104	Temp = -55°C to +150°C; for 1000 cycles (or equivalent)	1000 cyc
uHAST + PC	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs
SAT	12MSB17722C	12MSB17722C	3 lots
DPA	AEC-Q101-004 Section 4	Post 1X TC	3 lots
CDPA BS	12MSB17722C	Post TC	3 lots
CDPA WP	12MSB17722C	Post TC	3 lots
CDPA X Section	12MSB17722C	Post TC	3 lots
CDPA Xray	12MSB17722C	Post TC	3 lots
Shift	12MSB17722C, AEC-Q100-009	Post 1X HTOL TC	3 lots
ESD	12MSB17722C	HBM	3 lots
ESD	12MSB17722C	CDM	3 lots
LU	JESD78 Class I, AEC Q100-004	-LU, +LU	3 lots



Initial Product/Process Change Notification

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QV DEVICE NAME: NCP1421DMR2G
PACKAGE: 360 | MICRO8 AU SNGL HPBF

Test	Specification	Condition	Interval
HTOL	JA108	TA=125C, bias at 1.2X Nominal (not to exceed Max rated)	1008 hrs
HTSL	JESD22-A103	Ta= 150°C	1008 hrs
PC	J STD 020A, JESD22-A113	IR reflow at 245C or 260C (pkg dependant)	
HAST + PC	JESD22-A110	Ta= 130°C, 85% RH, ~18.8 psig, bias = 100% of rated V or 100V max	96 hrs
TC + PC	JESD22-A104	Temp = -55°C to +150°C; for 1000 cycles (or equivalent)	1000 cyc
uHAST + PC	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs
SAT	12MSB17722C	12MSB17722C	3 lots
ESD	12MSB17722C	HBM	3 lots
ESD	12MSB17722C	CDM	3 lots
LU	JESD78 Class I, AEC Q100-004	-LU, +LU	3 lots

QV DEVICE NAME: NCV303LSN45T1G
PACKAGE: 0670 | TSOP 5 EPOXY MATRIX PBFR

Test	Specification	Condition	Interval
HTOL	JA108	TA=125C, bias at 1.2X Nominal (not to exceed Max rated)	2016 hrs
HTSL	JESD22-A103	Ta= 150°C	2016 hrs
ELFR	AECQ100-008	TA=125C, bias at 1.2X Nominal (not to exceed Max rated)	48 hrs
PC	J STD 020A, JESD22-A113	IR reflow at 245C or 260C (pkg dependant)	
HAST + PC	JESD22-A110	Ta= 130°C, 85% RH, ~18.8 psig, bias = 100% of rated V or 100V max	96 hrs
TC + PC	JESD22-A104	Temp = -55°C to +150°C; for 1000 cycles (or equivalent)	1000 cyc
uHAST + PC	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs
SAT	12MSB17722C	12MSB17722C	3 lots
CDPA SAT Post 1X Stress	12MSB17722C	Post TC	3 lots
DPA	AEC-Q101-004 Section 4	Post 1X TC	3 lots
CDPA BS	12MSB17722C	Post TC	3 lots
CDPA WP	12MSB17722C	Post TC	3 lots
CDPA X Section	12MSB17722C	Post TC	3 lots
CDPA Xray	12MSB17722C	Post TC	3 lots
Shift	12MSB17722C, AEC-Q100-009	Post 1X HTOL TC	3 lots
ESD	12MSB17722C	HBM	3 lots
ESD	12MSB17722C	CDM	3 lots
LU	JESD78 Class I, AEC Q100-004	-LU, +LU	3 lots



Initial Product/Process Change Notification

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QV DEVICE NAME: NCV8690MN33T2G
PACKAGE: 0670 | DFN 6 3*3*.9MM WBC PBF

Test	Specification	Condition	Interval
HTOL	JA108	TA=125C, bias at 1.2X Nominal (not to exceed Max rated)	2016 hrs
HTSL	JESD22-A103	Ta= 150°C	2016 hrs
ELFR	AECQ100-008	TA=125C, bias at 1.2X Nominal (not to exceed Max rated)	48 hrs
PC	J STD 020A, JESD22-A113	IR reflow at 245C or 260C (pkg dependant)	
HAST + PC	JESD22-A110	Ta= 130°C, 85% RH, ~18.8 psig, bias = 100% of rated V or 100V max	96 hrs
TC + PC	JESD22-A104	Temp = -55°C to +150°C; for 1000 cycles (or equivalent)	1000 cyc
uHAST + PC	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs
SAT	12MSB17722C	12MSB17722C	3 lots
CDPA SAT Post 1X Stress	12MSB17722C	Post TC	3 lots
DPA	AEC-Q101-004 Section 4	Post 1X TC	3 lots
CDPA BS	12MSB17722C	Post TC	3 lots
CDPA WP	12MSB17722C	Post TC	3 lots
CDPA X Section	12MSB17722C	Post TC	3 lots
CDPA Xray	12MSB17722C	Post TC	3 lots
Shift	12MSB17722C, AEC-Q100-009	Post 1X HTOL TC	3 lots
ESD	12MSB17722C	HBM	3 lots
ESD	12MSB17722C	CDM	3 lots
LU	JESD78 Class I, AEC Q100-004	-LU, +LU	3 lots

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
MC78LC18NTRG	NCV551SN33T1G
MC78LC25NTRG	NCV551SN33T1G
MC78LC30NTRG	NCV551SN33T1G
MC78LC33NTRG	NCV551SN33T1G
MC78LC50NTRG	NCV551SN33T1G
NCP1421DMR2G	NCP1421DMR2G
NCP1422MNR2G	NCP1421DMR2G



Initial Product/Process Change Notification

Document #: IPCN24820X

Issue Date: 29 Sep 2022

NCP1423DMR2G	NCP1421DMR2G
NCP500SN18T1G	NCV500SN33T1G
NCP500SN25T1G	NCV500SN33T1G
NCP500SN30T1G	NCV500SN33T1G
NCP500SN33T1G	NCV500SN33T1G
NCP512SQ13T2G	NCV551SN33T1G
NCP551SN15T1G	NCV551SN33T1G
NCP551SN18T1G	NCV551SN33T1G
NCP551SN25T1G	NCV551SN33T1G
NCP551SN27T1G	NCV551SN33T1G
NCP551SN28T1G	NCV551SN33T1G
NCP551SN30T1G	NCV551SN33T1G
NCP551SN33T1G	NCV551SN33T1G
NCP551SN50T1G	NCV551SN33T1G
NCP553SQ30T1G	NCV551SN33T1G
NCP553SQ33T1G	NCV551SN33T1G
NCP553SQ50T1G	NCV551SN33T1G
NCP562SQ18T1G	NCV551SN33T1G
NCP563SQ33T1G	NCV551SN33T1G
NCP571MN08TBG	NCV551SN33T1G
NCP571MN12TBG	NCV551SN33T1G
NCP600SN330T1G	NCV8690MN33T2G
NCP600SNADJT1G	NCV8690MN33T2G
NCP603SN180T1G	NCV8690MN33T2G
NCP603SN300T1G	NCV8690MN33T2G
NCP603SN330T1G	NCV8690MN33T2G
NCP603SNADJT1G	NCV8690MN33T2G
NCP605MN28T2G	NCV8690MN33T2G
NCP606MN33T2G	NCV8690MN33T2G
NCP606MN50T2G	NCV8690MN33T2G
NCP606MNADJT2G	NCV8690MN33T2G
NCP612SQ18T2G	NCV551SN33T1G
NCP612SQ30T2G	NCV551SN33T1G
NCP662SQ25T1G	NCV551SN33T1G



Initial Product/Process Change Notification

Document #: IPCN24820X

Issue Date: 29 Sep 2022

NCP662SQ27T1G	NCV551SN33T1G
NCP662SQ28T1G	NCV551SN33T1G
NCP662SQ30T1G	NCV551SN33T1G
NCP662SQ50T1G	NCV551SN33T1G
NCP663SQ25T1G	NCV551SN33T1G
NCP663SQ27T1G	NCV551SN33T1G
NCP663SQ28T1G	NCV551SN33T1G
NCP690MN15T2G	NCV8690MN33T2G
NCP690MN33T2G	NCV8690MN33T2G
NCP690MNADJT2G	NCV8690MN33T2G
NCP691MN33T2G	NCV8690MN33T2G
NCP692MN33T2G	NCV8690MN33T2G
NCP698SQ13T1G	NCV551SN33T1G
NCP698SQ15T1G	NCV551SN33T1G
NCP698SQ18T1G	NCV551SN33T1G
NCP698SQ25T1G	NCV551SN33T1G
NCP698SQ28T1G	NCV551SN33T1G
NCP698SQ30T1G	NCV551SN33T1G
NCP698SQ33T1G	NCV551SN33T1G
NCP698SQ35T1G	NCV551SN33T1G
NCP699SN18T1G	NCV551SN33T1G
NCP699SN29T1G	NCV551SN33T1G
NCP699SN30T1G	NCV551SN33T1G
NCP699SN33T1G	NCV551SN33T1G
NCP699SN34T1G	NCV551SN33T1G
NCP699SN50T1G	NCV551SN33T1G
NCS2001SN1T1G	NCV8690MN33T2G
NCS2001SN2T1G	NCV8690MN33T2G
NCS2001SQ2T2G	NCV8690MN33T2G
NCS2200AMUT1G	NCV8690MN33T2G
NCS2200SN1T1G	NCS2202SQ2T2G
NCS2200SN2T1G	NCS2202SQ2T2G
NCS2200SQ2T2G	NCS2202SQ2T2G
NCS2202AMUTBG	NCV8690MN33T2G



Initial Product/Process Change Notification

Document #: IPCN24820X

Issue Date: 29 Sep 2022

NCS2202SN1T1G	NCS2202SQ2T2G
NCS2202SN2T1G	NCS2202SQ2T2G
NCS2202SQ1T2G	NCS2202SQ2T2G
NCS2202SQ2T2G	NCS2202SQ2T2G
NCS2220AMUT1G	NCV8690MN33T2G
NCS7101SN2T1G	NCS2202SQ2T2G
NCS7101SN1T1G	NCS2202SQ2T2G
NCS3402DR2G	NCV303LSN45T1G
NCP692MN15T2G	NCV8690MN33T2G
NCP691MN25T2G	NCV8690MN33T2G
NCP612SQ31T2G	NCV551SN33T1G
NCP606MN28T2G	NCV8690MN33T2G
NCP553SQ27T1G	NCV551SN33T1G

Appendix A: Changed Products

DIKG: DIGI-KEY (page 1 of 2)

Product	Customer Part Number	Qualification Vehicle	New Part Number	Replacement Supplier
MC78LC18NTRG		NCV551SN33T1G		
MC78LC30NTRG		NCV551SN33T1G		
MC78LC33NTRG		NCV551SN33T1G		
MC78LC50NTRG		NCV551SN33T1G		
NCP1421DMR2G		NCP1421DMR2G		
NCP1422MNR2G		NCP1421DMR2G		
NCP500SN18T1G		NCV500SN33T1G		
NCP500SN25T1G		NCV500SN33T1G		
NCP500SN30T1G		NCV500SN33T1G		
NCP500SN33T1G		NCV500SN33T1G		
NCP512SQ13T2G		NCV551SN33T1G		
NCP551SN15T1G		NCV551SN33T1G		
NCP551SN18T1G		NCV551SN33T1G		
NCP551SN25T1G		NCV551SN33T1G		
NCP551SN27T1G		NCV551SN33T1G		
NCP551SN28T1G		NCV551SN33T1G		
NCP551SN30T1G		NCV551SN33T1G		
NCP551SN33T1G		NCV551SN33T1G		
NCP551SN50T1G		NCV551SN33T1G		
NCP553SQ30T1G		NCV551SN33T1G		
NCP553SQ33T1G		NCV551SN33T1G		
NCP553SQ50T1G		NCV551SN33T1G		
NCP562SQ18T1G		NCV551SN33T1G		
NCP563SQ33T1G		NCV551SN33T1G		
NCP571MN12TBG		NCV551SN33T1G		
NCP600SN330T1G		NCV8690MN33T2G		
NCP600SNADJT1G		NCV8690MN33T2G		
NCP603SN180T1G		NCV8690MN33T2G		
NCP603SN300T1G		NCV8690MN33T2G		
NCP603SN330T1G		NCV8690MN33T2G		
MC78LC25NTRG		NCV551SN33T1G		
NCP605MN28T2G		NCV8690MN33T2G		
NCP606MN33T2G		NCV8690MN33T2G		
NCP603SNADJT1G		NCV8690MN33T2G		
NCP606MNADJT2G		NCV8690MN33T2G		
NCP606MN50T2G		NCV8690MN33T2G		
NCP612SQ30T2G		NCV551SN33T1G		
NCP612SQ18T2G		NCV551SN33T1G		
NCP663SQ28T1G		NCV551SN33T1G		
NCP662SQ25T1G		NCV551SN33T1G		
NCP690MN33T2G		NCV8690MN33T2G		
NCP690MNADJT2G		NCV8690MN33T2G		
NCP692MN33T2G		NCV8690MN33T2G		
NCP691MN33T2G		NCV8690MN33T2G		
NCP698SQ15T1G		NCV551SN33T1G		
NCP698SQ13T1G		NCV551SN33T1G		
NCP698SQ25T1G		NCV551SN33T1G		
NCP698SQ18T1G		NCV551SN33T1G		
NCP698SQ30T1G		NCV551SN33T1G		
NCP698SQ28T1G		NCV551SN33T1G		
NCP698SQ35T1G		NCV551SN33T1G		
NCP698SQ33T1G		NCV551SN33T1G		
NCP699SN30T1G		NCV551SN33T1G		
NCP699SN18T1G		NCV551SN33T1G		
NCP699SN50T1G		NCV551SN33T1G		
NCP699SN33T1G		NCV551SN33T1G		
NCS2001SN2T1G		NCV8690MN33T2G		
NCS2001SN1T1G		NCV8690MN33T2G		
NCS2200AMUT1G		NCV8690MN33T2G		
NCS2001SQ2T2G		NCV8690MN33T2G		

Appendix A: Changed Products

PCN#: IPCN24820X
Issue Date: Sep 29, 2022

DIKG: DIGI-KEY (page 2 of 2)

Product	Customer Part Number	Qualification Vehicle	New Part Number	Replacement Supplier
NCS2200SN2T1G		NCS2202SQ2T2G		
NCS2200SN1T1G		NCS2202SQ2T2G		
NCS2202AMUTBG		NCV8690MN33T2G		
NCS2200SQ2T2G		NCS2202SQ2T2G		
NCS2202SN2T1G		NCS2202SQ2T2G		
NCS2202SN1T1G		NCS2202SQ2T2G		
NCS2202SQ2T2G		NCS2202SQ2T2G		
NCS2202SQ1T2G		NCS2202SQ2T2G		
NCS7101SN2T1G		NCS2202SQ2T2G		
NCS2220AMUT1G		NCV8690MN33T2G		
NCS3402DR2G		NCV303LSN45T1G		
NCS7101SN1T1G		NCS2202SQ2T2G		