



Initial Product/Process Change Notification

Document #: IPCN25729XC

Issue Date: 17 Apr 2024

Title of Change:	Wafer Fab Site Addition of onsemi, Bucheon Korea as alternate fab site for ESD and Surge Protection products.	
Proposed First Ship date:	28 Mar 2025 or earlier if approved by customer	
Contact Information:	Contact your local onsemi Sales Office or norhayati.othman@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:	Changed material can be identified by lot code	
Change Category:	Wafer Fab Change	
Change Sub-Category(s):	Manufacturing Site Addition	
Sites Affected:		
onsemi Sites	External Foundry/Subcon Sites	
onsemi Bucheon, Korea	None	
Description and Purpose:		
This IPCN announces the qualification of onsemi, Bucheon Korea as additional wafer fab for ESD and Surge Protection products.		
There are no product marking changes as a result of this change.		
	Before Change Description	After Change Description
Manufacturing locations for Wafer Fab	LA Semiconductor, Idaho, United States	onsemi Bucheon, Korea, LA Semiconductor, Idaho, United States



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Qualification Plan:

Qualification tests are designed to show that the reliability of the transferred devices will continue to meet or exceed onsemi standard.

QV DEVICE NAME: ESD9M5.0ST5G

RMS: 97093

PACKAGE: SOD923

Test	Specification	Condition	Interval
High Temperature Reverse Bias	JESD22-A108	Ta=150°C, 100% max rated V	1008 hrs
High Temperature Storage Life	JESD22-A103	Ta=150°C	1008 hrs
Preconditioning	J-STD-020 JESD-A113	MSL 1 @260°C	
Temperature Cycling	JESD22-A104	Ta= -55°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

QV DEVICE NAME: ESD8011MUT5G

RMS: 97108

PACKAGE: X3DFN

Test	Specification	Condition	Interval
High Temperature Reverse Bias	JESD22-A108	Ta=150°C, 100% max rated V	1008 hrs
Preconditioning	J-STD-020 JESD-A113	MSL 1 @260°C	
Highly Accelerated Stress Test	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hrs

QV DEVICE NAME: ESD7321MUT5G

RMS: S94408

PACKAGE: X3DFN

Test	Specification	Condition	Interval
High Temperature Reverse Bias	JESD22-A108	Ta=150°C, 100% max rated V	1008 hrs
High Temperature Storage Life	JESD22-A103	Ta=150°C	1008 hrs
Preconditioning	J-STD-020 JESD-A113	MSL 1@260°C	
Temperature Cycling	JESD22-A104	Ta= -55°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



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QV DEVICE NAME: SESDL2031MX4T5G

RMS: 97012

PACKAGE: X4DFN

Test	Specification	Condition	Interval
High Temperature Reverse Bias	JESD22-A108	Ta=150°C, 100% max rated V	1008 hrs
High Temperature Storage Life	JESD22-A103	Ta=150°C	1008 hrs
Preconditioning	J-STD-020 JESD-A113	MSL 1 @260°C	
Temperature Cycling	JESD22-A104	Ta= -40°C to +125°C	1550 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

QV DEVICE NAME: SZTVS4201MR6T1G

RMS: 97122

PACKAGE: TSOP6

Test	Specification	Condition	Interval
High Temperature Reverse Bias	JESD22-A108	Ta=150°C, 100% max rated V	1008 hrs
High Temperature Storage Life	JESD22-A103	Ta=150°C	1008 hrs
Preconditioning	J-STD-020 JESD-A113	MSL 1 @260°C	
Temperature Cycling	JESD22-A104	Ta= -55°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

QV DEVICE NAME: SESD5111PFCT5G

RMS: 97040

PACKAGE: X4DFN

Test	Specification	Condition	Interval
High Temperature Reverse Bias	JESD22-A108	Ta=150°C, 100% max rated V	1008 hrs
High Temperature Storage Life	JESD22-A103	Ta=150°C	1008 hrs
Preconditioning	J-STD-020 JESD-A113	MSL 1 @260°C	
Temperature Cycling	JESD22-A104	Ta= -40°C to +125°C	1550 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



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QV DEVICE NAME: ESD10201MUT5G

RMS: 97034

PACKAGE: X3DFN

Test	Specification	Condition	Interval
High Temperature Reverse Bias	JESD22-A108	Ta=150°C, 100% max rated V	1008 hrs
Preconditioning	J-STD-020 JESD-A113	MSL 1 @260°C	
Highly Accelerated Stress Test	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hrs

QV DEVICE NAME: ESDL2012MX4T5G

RMS: 93678

PACKAGE: X4DFN

Test	Specification	Condition	Interval
High Temperature Reverse Bias	JESD22-A108	Ta=150°C, 100% max rated V	1008 hrs
High Temperature Storage Life	JESD22-A103	Ta=150°C	1008 hrs
Preconditioning	J-STD-020 JESD-A113	MSL 1 @260°C	
Temperature Cycling	JESD22-A104	Ta= -40°C to +125°C	1550 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
Physical Dimension	JESD22-B120		

QV DEVICE NAME: ESD8111FCT5G

RMS: 97110

PACKAGE: DSN2

Test	Specification	Condition	Interval
High Temperature Reverse Bias	JESD22-A108	Ta=150°C, 100% max rated V	1008 hrs
High Temperature Storage Life	JESD22-A103	Ta=150°C	1008 hrs
Preconditioning	J-STD-020 JESD-A113	MSL 1 @260°C	
Temperature Cycling	JESD22-A104	Ta= -40°C to +125°C	1550 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



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QV DEVICE NAME: SZESD7205DT5G

RMS: 97194

PACKAGE: SOT-723

Test	Specification	Condition	Interval
High Temperature Reverse Bias	JESD22-A108	Ta=150°C, 100% max rated V	1008 hrs
High Temperature Storage Life	JESD22-A103	Ta=150°C	1008 hrs
Preconditioning	J-STD-020 JESD-A113	MSL 1 @260°C	
Temperature Cycling	JESD22-A104	Ta= -55°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

QV DEVICE NAME: SESDU1052FCT5G

RMS: TBD

PACKAGE: DSN2

Test	Specification	Condition	Interval
High Temperature Reverse Bias	JESD22-A108	Ta=150°C, 100% max rated V	1008 hrs
Preconditioning	J-STD-020 JESD-A113	MSL 1 @260°C	
Temperature Cycling	JESD22-A104	Ta= -40°C to +125°C	1550 cyc
Highly Accelerated Stress Test	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hrs

Estimated date for qualification completion: **28 December 2024**

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
ESD9L3.3ST5G	ESD9M5.0ST5G
ESD9L5.0ST5G	ESD9M5.0ST5G
ESD9M5.0ST5G	ESD9M5.0ST5G
ESD9P5.0ST5G	ESD9M5.0ST5G
ESD9R3.3ST5G	ESD9M5.0ST5G
ESD8011MUT5G	ESD8011MUT5G, ESD7321MUT5G
ESD8351MUT5G	ESD8011MUT5G
ESD8451MUT5G	ESD8011MUT5G
ESDL2031MX4T5G	SESDL2031MX4T5G



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SESDL2031MX4T5G	SESDL2031MX4T5G
NSP4201MR6T1G	SZTVS4201MR6T1G
NSP2201MR6T1G	SZTVS4201MR6T1G
TVS4201MR6T1G	SZTVS4201MR6T1G
ESD5111PFCT5G	SESD5111PFCT5G
ESDM2033MX4T5G	SESD5111PFCT5G
ESDU1052FCT5G	SESDU1052FCT5G, ESD8111FCT5G
SESDU1052FCT5G	SESDU1052FCT5G, ESD8111FCT5G
ESD5101FCT5G	SESD5111PFCT5G, ESD8111FCT5G
ESD5101AFCT5G	SESD5111PFCT5G, ESD8111FCT5G
SESD5101AFCT5G	SESD5111PFCT5G, ESD8111FCT5G
ESD8111PFCT5G	ESD8011MUT5G, SESD5111PFCT5G
ESD8111FCT5G	ESD8111FCT5G
ESDL1012MX4T5G	ESDL2012MX4T5G
SESDL1012MX4T5G	ESDL2012MX4T5G
ESD7481MUT5G	ESD7321MUT5G
ESD7382MUT5G	ESD7321MUT5G
ESD7381MUT5G	ESD7321MUT5G
ESD7205DT5G	SZESD7205DT5G
ESD10201MUT5G	ESD10201MUT5G, ESD7321MUT5G
ESD7181MUT5G	ESD10201MUT5G
ESDM2032MX4T5G	SESD5111PFCT5G, ESDL2012MX4T5G, SESDL2031MX4T5G
SESDM2033AMX4T5G	SESD5111PFCT5G, ESDL2012MX4T5G, SESDL2031MX4T5G

Appendix A: Changed Products

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DIKG: DIGI-KEY

Product	Customer Part Number	Qualification Vehicle	New Part Number	Replacement Supplier
ESD7181MUT5G		ESD10201MUT5G	#NONE	
ESD7481MUT5G		ESD7321MUT5G	#NONE	
ESD8111FCT5G		ESD8111FCT5G	#NONE	
ESD8111PFCT5G		ESD8011MUT5G, SESD5111PFCT5G	#NONE	
ESD5101FCT5G		SESD5111PFCT5G, ESD8111FCT5G	#NONE	
ESD9M5.0ST5G		ESD9M5, 0ST5G	#NONE	
ESD9L5.0ST5G		ESD9M5, 0ST5G	#NONE	
ESD9L3.3ST5G		ESD9M5, 0ST5G	#NONE	
ESD9P5.0ST5G		ESD9M5, 0ST5G	#NONE	
ESDU1052FCT5G		SESDU1052FCT5G, ESD8111FCT5G	#NONE	
ESD5101AFCT5G		SESD5111PFCT5G, ESD8111FCT5G	#NONE	
ESD7205DT5G		SZESD7205DT5G	#NONE	
ESDM2032MX4T5G		SESD5111PFCT5G, ESDL2012MX4T5G, SESDL2031MX4T5G	#NONE	
ESDM2033MX4T5G		SESD5111PFCT5G	#NONE	
ESD5111PFCT5G		SESD5111PFCT5G	#NONE	
TVS4201MR6T1G	TVS4201MR6T1G	SZTVS4201MR6T1G	#NONE	
NSP2201MR6T1G		SZTVS4201MR6T1G	#NONE	
NSP4201MR6T1G		SZTVS4201MR6T1G	#NONE	
ESDL2031MX4T5G		SESDL2031MX4T5G	#NONE	
ESD8451MUT5G		ESD8011MUT5G	#NONE	
ESD7381MUT5G		ESD7321MUT5G	#NONE	
ESD8351MUT5G		ESD8011MUT5G	#NONE	
ESD8011MUT5G		ESD8011MUT5G, ESD7321MUT5G	#NONE	
ESD9R3.3ST5G		ESD9M5, 0ST5G	#NONE	