



Initial Product/Process Change Notification

Document #: IPCN27004XA1

Issue Date: 03 Aug 2026

Title of Change:	Update to IPCN27004XA - Wafer Fab and Test Site Change for PT4 Products - Addition of Bucheon, Korea	
Proposed First Ship date:	05 Jul 2027 or earlier if approved by customer	
Contact Information:	Contact your local onsemi Sales Office	
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:	The changed material can be identified by lot code and date code.	
Change Category:	Test Change, Wafer Fab Change	
Change Sub-Category(s):	Manufacturing Site Transfer	
Sites Affected:		
onsemi Sites		External Foundry/Subcon Sites
onsemi Bucheon, Korea		None
Description and Purpose:		
This Update Notification is to inform customers of the qualification of onsemi Bucheon, Korea facility as NEW wafer fab site for PT4 Technology. FPCNs to be issued in April of 2027 with first ship date as referenced above from Bucheon fab. If your FPCN approval will extend beyond the proposed first ship date, provide unit requirements for the unchanged material to your onsemi sales representative no later than May 31, 2026, by NCNR PO (Last order date for unchanged material). These bridge quantities will be limited and will be considered on a first-come, first-serve basis. onsemi will work with customers to facilitate the approval of the FPCNs by providing early samples and matching electrical data upon request, prior to the final PCN notices in April of 2027 to reduce customers' need for additional unchanged material. Early samples are processed according to final process and condition as released in the FPCN. No changes will occur between early samples and after FPCN issuance.		



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	Before Change Description	After Change Description
FAB Site	Mountain Top, PA, USA	Bucheon, Korea
Back grind Site	Mountain Top, PA, USA	Bucheon, Korea
Probe Site	Mountain Top, PA, USA and Bucheon, Korea	Bucheon, Korea
OPN naming	No change	-BK suffix added

There is no product marking change because of this change.

Qualification Plan:

QV DEVICE NAME: FDMA410NZ

RMS: 111088

PACKAGE: WDFN-6

Test	Specification	Condition	Interval
High Temperature Reverse Bias	JESD22-A108	Tj = Max rate Tj for device, bias =100% of rated V (Not to exceed max rated)	1,008 hrs
High Temperature Gate Bias	JESD22-A108	Tj = Max rate Tj for device, Max Vg	1,008 hrs
Precondition (PC)	J-STD-020, JESD22-A113	IR reflow at 245C or 260C (pkg dependant)	-
(PC+) Highly Accelerated Stress Test	JESD22-A110	Temp = 130C, 85% RH, ~ 18.8 psig, bias = 80% of rated V	96 hrs
(PC+) Unbiased Highly Accelerated Stress Test	JESD22-A118	Temp = 130C, RH=85%, ~ 18.8 psig	96 hrs
(PC+) Temp Cycling	JESD22-A104	Temp = -55°C to +150°C	1,000 cyc
(PC+) Intermittent Operating Life	MIL STD750, M 1037, AEC Q101	Ta=+25°C, deltaTj=100°C max, 2 min Ton=Toff	15,000 cyc
(PC+) RSH	JESD22-B106	Ta=260°C 10 sec dwell	X1

QV DEVICE NAME: FDC655BN

RMS: 110928

PACKAGE: TSOT-23

Test	Specification	Condition	Interval
High Temperature Storage Life	JESD22-A103	Ta =Max rate storage temp for device	2,016 hrs
Precondition (PC)	J-STD-020, JESD22-A113	IR reflow at 245C or 260C (pkg dependant)	-
(PC+) Highly Accelerated Stress Test	JESD22-A110	Temp = 130C, 85% RH, ~ 18.8 psig, bias = 80% of rated V	192 hrs
(PC+) Temp Cycling	JESD22-A104	Temp = -55°C to +150°C	2,000 cyc



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QV DEVICE NAME: FDD8444

RMS: 110927

PACKAGE: TO-252

Test	Specification	Condition	Interval
High Temperature Reverse Bias	JESD22-A108	Tj = Max rate Tj for device, bias =100% of rated V (Not to exceed max rated)	1,008 hrs
High Temperature Gate Bias	JESD22-A108	Tj = Max rate Tj for device, Max Vg	1,008 hrs
High Temperature Storage Life	JESD22-A103	Ta =Max rate storage temp for device	1,008 hrs
Low Temperature Storage Life	JESD22-A108	Ta =Min rate storage temp for device	168 hrs
Early Life Failure Rate - RB	JESD22-A108	Tj = Max rate Tj for device, bias =100% of rated V (Not to exceed max rated)	48 hrs
Early Life Failure Rate - GB	JESD22-A108	Tj = Max rate Tj for device, Max Vgs	48 hrs
Precondition (PC)	J-STD-020, JESD22-A113	IR reflow at 245C or 260C (pkg dependant)	-
(PC+) Highly Accelerated Stress Test	JESD22-A110	Temp = 130C, 85% RH, ~ 18.8 psig, bias = 80% of rated V	96 hrs
(PC+) Unbiased Highly Accelerated Stress Test	JESD22-A118	Temp = 130C, RH=85%, ~ 18.8 psig	96 hrs
(PC+) Temp Cycling	JESD22-A104	Temp = -55°C to +150°C	1,000 cyc
(PC+) Intermittent Operating Life	MIL STD750, M 1037, AEC Q101	Ta=+25°C, deltaTj=100°C max, 2 min Ton=Toff	15,000 cyc
(PC+) RSH	JESD22-B106	Ta=260°C 10 sec dwell	X1

QV DEVICE NAME: FDMC8554

RMS: 111089

PACKAGE: WDFN-8

Test	Specification	Condition	Interval
High Temperature Reverse Bias	JESD22-A108	Tj = Max rate Tj for device, bias =100% of rated V (Not to exceed max rated)	1,008 hrs
Precondition (PC)	J-STD-020, JESD22-A113	IR reflow at 245C or 260C (pkg dependant)	-
(PC+) Highly Accelerated Stress Test	JESD22-A110	Temp = 130C, 85% RH, ~ 18.8 psig, bias = 80% of rated V	96 hrs
(PC+) Unbiased Highly Accelerated Stress Test	JESD22-A118	Temp = 130C, RH=85%, ~ 18.8 psig	96 hrs



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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](#).

Current Part Number	New Part Number	Qualification Vehicle
FDMC8015L	FDMC8015L-BK	FDD8444
FDMA2002NZ	FDMA2002NZ-BK	FDD8444
FDMA1028NZ	FDMA1028NZ-BK	FDD8444
FDMA1024NZ	FDMA1024NZ-BK	FDD8444
FDC637BNZ	FDC637BNZ-BK	FDD8444
FDME1024NZT	FDME1024NZT-BK	FDD8444
FDD8447L	FDD8447L-BK	FDD8444
FDS8984	FDS8984-BK	FDD8444
FDS8949	FDS8949-BK	FDD8444
FDS8840NZ	FDS8840NZ-BK	FDD8444
FDS8896	FDS8896-BK	FDD8444
FDD8444	FDD8444-BK	FDD8444
FDC655BN	FDC655BN-BK	FDD8444