Final Product/Process Change Notification

Document #:FPCN24631X
Issue Date:05 Apr 2023

Title of Change:	Qualify Vanguard International Semiconductor (VIS) Fab3 as an additional site to VIS Fab2
Proposed First Ship date:	12 Jul 2023 or earlier if approved by customer
Contact Information:	Contact your local onsemi Sales Office or CheePin.Tay@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.
Additional Reliability Data:	Contact your local onsemi Sales Office or songyong.sim@onsemi.com
Type of Notification:	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 PCN.Support@onsemi.com
Marking of Parts/ Traceability of Change:	Affected part will be identified with a date-code/wafer lot#.
Change Category:	Wafer Fab Change
Change Sub-Category(s):	Manufacturing Site Addition

Sites Affected:

onsemi Sites	**External Foundry/Subcon Sites**
None	Vanguard International Semiconductor, Taiwan

Description and Purpose:

The purpose of this change is to expand VIS Fab capacity by qualifying Fab3 as an additional site besides existing Fab2. This will help to increase flexibility of loading swap between Fab2 & Fab3. Upon expiry of FPCN, VIS will be readied to run production at both Fab2 & Fab3.

	Before Change Description	**After Change Description**
Wafer Fab Site	Vanguard (VIS) Fab2	Vanguard (VIS) Fab2 & Fab3

Note:

- There are no wafer/die or product material change as this is only involving Wafer Fab site addition. This change will not affect the form, fit & function of the finished product.
- There is no change in Assembly & Test site.
- There is no change in finished product marking.

Reliability Data Summary:

QV DEVICE NAME: FDPC5030SG (VRS53CDZ2KX - Q2)
RMS: F85828
PACKAGE: PQFN-8

Test	Specification	Condition	Interval	Results
High Temperature Reverse Bias	JESD22-A108	Tj=150°C, 80% max rated V	1008 hrs	0/240
High Temperature Gate Bias	JESD22-A108	Tj=150°C, 100% max rated Vgss	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 IOL, TC, uHAST, HAST for surface mount pkgs only	-	-
Intermittent Operating Life	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 2 min	15000 cyc	0/120
Temperature Cycling	JESD22-A104	Ta= -55°C to +150°C	1000 cyc	0/120
Highly Accelerated Stress Test	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hrs	0/120
Unbiased Highly Accelerated Stress Test	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/120

Electrical Characteristics Summary:

Electrical characterization data will only be provided upon request.

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
NTMFD2D4N03P8	FDPC5030SG
FDPC5030SG	FDPC5030SG

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Appendix A: Changed Products

PCN#: FPCN24631X
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DIKG: DIGI-KEY

Product	Customer Part Number	Qualification Vehicle	New Part Number	Replacement Supplier
NTMFD2D4N03P8		FDPC5030SG		
FDPC5030SG		FDPC5030SG		