



Final Product/Process Change Notification

Document #:FPCN25084X

Issue Date:08 Mar 2023

Title of Change:	Assembly & Test site transfer of PQFN-8 3.3 X 3.3 products from onsemi Cebu/Philippines to UTAC Bangkok/Thailand
Proposed First Ship date:	15 Jun 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 Aileen.Allado@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 parts are to be identified by site code/date-code
Change Category:	Assembly Change, Test Change
Change Sub-Category(s):	Manufacturing Site Transfer

Sites Affected:	
onsemi Sites	External Foundry/Subcon Sites
None	UTAC, Thailand

Description and Purpose:		
<p>The purpose of this change qualification is to transfer Assembly & Test from CEBU to UTAC (subcon) for PQFN-8 3.3 X 3.3 products. Upon FPCN expired, UTAC Thailand will be readied to manufacture these 3 products as shown in the product list below.</p>		
	Before Change Description	After Change Description
Assembly Site	CEBU (PBB)	UTAC (UTL1)
Test Site	CEBU (PBB)	UTAC (UTL3)
Lead Frame	Selective Ag Plating	Selective Ag Plating (Change in coverage area)
Bond Wire	Cu 2.0 mil	AuPdCu 2.0 mil
<p>There is no change in product (wafer/die), assembly process, test coverage, datasheet & device marking format as the result of this change and it will not affect the form, fit & function of the products.</p>		

Reliability Data Summary:

QV DEVICE NAME: FDMC6686P (Main QV)

RMS: F85944

PACKAGE: PQFN8 CU SNGL HPBF

Test	Specification	Condition	Interval	Results
High Temperature Reverse Bias	JESD22-A108	Ta=150°C, Vds=-16V, 80% of max rated V	1008 hrs	0/231
High Temperature Gate Bias	JESD22-A108	Ta=150°C, Vgs=-8V, 100% of max rated V	1008 hrs	0/231
High Temperature Storage Life	JESD22-A103	Ta=150°C	1008 hrs	0/231
Preconditioning	J-STD-020 JESD-A113	MSL 1 @ 260 °C, Pre IOL, TC, uHAST, HAST for surface mount pkgs only	-	0/924
Intermittent Operating Life	MIL-STD-750, (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 2 min	15,000 cyc	0/231
Temperature Cycling	JESD22-A104	Ta= -55°C to +150°C	1000 cyc	0/231
Highly Accelerated Stress Test	JESD22-A110	Temp=130°C, 85% RH, ~18.8 psig, Vds=-16V, 80% of max rated V	96 hrs	0/231
Unbiased Highly Accelerated Stress Test	JESD22-A118	Temp=130°C, 85% RH, ~18.8 psig, unbiased	96 hrs	0/231
Resistance To Solder Heat	JESD22- B106	Ta = 265°C, 10 sec Required for through hole devices only	-	0/90
Solderability	JSTD002	Ta = 245°C, 5 sec	-	0/33
Physical Dimension	JESD22-B120	-	-	Passed

QV DEVICE NAME: FDMC6688P (Supplementary QV – Validate change in Ag plating coverage area)

RMS : F85943

PACKAGE : PQFN8 CU SNGL HPBF

Test	Specification	Condition	Interval	Results
Preconditioning	J-STD-020 JESD-A113	MSL 1 @ 260 °C, Pre IOL, TC, uHAST, HAST for surface mount pkgs only	-	0/462
Temperature Cycling	JESD22-A104	Ta= -55°C to +150°C	1000 cyc	0/231
Unbiased Highly Accelerated Stress Test	JESD22-A118	Temp=130°C, 85% RH, ~18.8 psig, unbiased	96 hrs	0/231
Solderability	JSTD002	Ta = 245°C, 5 sec	-	0/33
Physical Dimension	JESD22-B120	-	-	Passed

Electrical Characteristics Summary:

Electrical characterization or equivalent ATE data will 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
FDMC6686P	FDMC6686P, FDMC6688P



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FDMC6688P	FDMC6686P, FDMC6688P
FDMC6696P	FDMC6686P, FDMC6688P

Appendix A: Changed Products

PCN#: FPCN25084X
Issue Date: Mar 07, 2023

DIKG: DIGI-KEY

Product	Customer Part Number	Qualification Vehicle	New Part Number	Replacement Supplier
FDMC6686P		FDMC6686P, FDMC6688P		
FDMC6688P		FDMC6686P, FDMC6688P		