ON Semiconductor®

Initial Product/Process Change Notification

Document #: IPCN23414X
Issue Date:12 Aug 2020

Title of Change:	New Lead Frame Gate Pad Design And Possehl Supplier Qualification For MP56 Devices At ASE Malaysia (ASEM).
Proposed First Ship date:	29 Jan 2021 or earlier if approved by customer
Contact Information:	Contact your local ON Semiconductor Sales Office or CheePin.Tay@onsemi.com
PCN Samples Contact:	Contact your local ON Semiconductor Sales Office or PCN.samples@onsemi.com 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:	Product with new lead frame gate pad design & supplier will be identified by cut-off date-code
Change Category:	Assembly Change
Change Sub-Category(s):	Design of new lead frame for product quality improvement on gate pad void

Sites Affected:

ON Semiconductor Sites	**External Foundry/Subcon Sites**
None	ASE, Malaysia (ASEM)

Description and Purpose:

The existing design lead frame has caused some product quality issue to various customers. The propose change of new design lead frame will definitely help to minimize gate pad void problem.

In addition, this change will not affect overall form, fit & function of the products.

	Before Change Description	**After Change Description**
LeadFrame Supplier	Shinko	Possehl
Design - LeadFrame Dimension (Gate Pad Lead Size)	0.45 x 0.45mm	0.50 x 0.50mm
Design - Stencil Dimension (Gate Pad Stencil Opening)	0.280 x 0.229mm	0.31 x 0.31mm
LeadFrame Finishing (Gate Pad Lead & Other Solderable Area)	No Ag plating	Selective Ag plating

- There are no product material changes for wire, clip, solder & mold compound as a result of this change.
- There is no product marking change as a result of this change.

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Qualification Plan:

QV DEVICE NAME: FDPC8016S
RMS# : F67585
PACKAGE : PQFN 5X6

Test	Specification	Condition	Interval
HTSL	JESD22-A103	Ta=150C	1008 hrs
PC	J-STD-020, JESD22-A113	IR reflow at 260C	
HAST+PC	JESD22-A110	130°C, 85% RH, 18.8psig, bias=20V	192 hrs
TC+PC	JESD22-A104	Ta=-55C to +150C	1000 cyc
UHAST+PC	JESD22-A1118	130°C, 85% RH, 18.8psig, unbiased	96 hrs
RSH	JESD22- B106	Ta = 265C, 10 sec dwell	
SD	J-STD-002	Ta = 245C, 5 sec dwell	

Estimated date for qualification completion: **9 October 2020**

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
FDPC8016S-B801	FDPC8016S