ON Semiconductor®

Final Product/Process Change Notification

Document # : FPCN22107X
Issue Date: 10 January 2018

Title of Change:	Qualification of GEM Shanghai, China as additional Assembly and Test site for Power 56 package devices.
Proposed first ship date:	16 April 2018
Contact information:	Contact your local ON Semiconductor Sales Office
Samples:	Contact your local ON Semiconductor Sales Office or <Maricel.Escobedo@onsemi.com>
Additional Reliability Data:	Contact your local ON Semiconductor Sales Office or <Phine.Guevarra@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. ON Semiconductor 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>.
Change Part Identification:	Customer may receive the parts from ON Semiconductor Subcon which is GEM located in China from month of April 2018 onwards once FPCN expire. Parts from ON Semiconductor Subcon, GEM, China can be identified through product marking which follow ON Semiconductor marking format.
Change category:	☐ Wafer Fab Change ☒ Assembly Change ☒ Test Change ☐ Other _____
Change Sub-Category(s):	☒ Manufacturing Site Change/Addition ☐ Manufacturing Process Change ☐ Material Change ☐ Product specific change ☐ Datasheet/Product Doc change ☒ Shipping/Packaging/Marking ☐ Other: _____

Sites Affected:	ON Semiconductor Sites: None	External Foundry/Subcon Sites: GEM Shanghai, China

Description and Purpose:

This Final Notification announces that ON Semiconductor Cebu, Philippines former Fairchild Semiconductor in Cebu, Philippines , has qualified GEM Shanghai as an alternate assembly and test site for Power 56 package. GEM Shanghai is certified with ISO/TS 169 49:2009 and is currently running mass production for PQFN 56 Wired Package. This package was previously qualified at GEM Shanghai, China by Fairchild in 2009 (PCN#:Q2102401).

This Final Notification is an addition to the list from the previous PCN#:P286A. Affected products may also be manufactured using Power 56 package at GEM Shanghai, China as these products is qualified by similarity and qualified by extension. There is no change to the form, fit and function of the devices to be produced at GEM Shanghai as dual sourcing site. The Quality and reliability will remain at the highest standards already demonstrated with the existing products.

These products will continue being Pb-free, Halide free and RoHS compliant. Qualification tests are designed to show that the reliability of the impacted devices will continue to meet or exceed ON Semiconductor standards.

Reliability Data Summary:

DEVICE NAME : **FDMS8460**
Qual Plan: **QP12130986**
PACKAGE: **PQFN56 Wired**

Test	Specification	Condition	Interval	Results
MSL 1 Precondition	JESD22-A113	260, 3 cycles	-	0/154
Temperature Cycle	JESD22-A104	-65C,150C	500 cycles	0/77
Highly Accelerated Stress Test	JESD22-A110	130C, 85%RH, 5.0V	96 hrs	0/77

DEVICE NAME : **FDMS3662**
Qual Plan: **QP12130986**
PACKAGE: **PQFN56 Wired**

Test	Specification	Condition	Interval	Results
MSL 1 Precondition	JESD22-A113	260, 3 cycles	-	0/154
Temperature Cycle	JESD22-A104	-65C,150C	500 cycles	0/77
Highly Accelerated Stress Test	JESD22-A110	130C, 85%RH, 5.0V	96 hrs	0/77

DEVICE NAME : **FDMS6673BZ**
Qual Plan: **QP12130986**
PACKAGE: **PQFN56 Wired**

Test	Specification	Condition	Interval	Results
MSL 1 Precondition	JESD22-A113	260, 3 cycles	-	0/154
Temperature Cycle	JESD22-A104	-65C,150C	500 cycles	0/77
Highly Accelerated Stress Test	JESD22-A110	130C, 85%RH, 5.0V	96 hrs	0/77

DEVICE NAME : **FDMS0308S**
Qual Plan: **QP12130986**
PACKAGE: **PQFN56 Wired**

Test	Specification	Condition	Interval	Results
MSL 1 Precondition	JESD22-A113	260, 3 cycles	-	0/154
Temperature Cycle	JESD22-A104	-65C,150C	500 cycles	0/77
Highly Accelerated Stress Test	JESD22-A110	130C, 85%RH, 5.0V	96 hrs	0/77

Electrical Characteristic Summary:

The temperature characterization and ESD performance meet datasheet specification. Detail of Electrical characterization result is available upon request.

List of Affected Standard Parts:

Part Number	Qualification Vehicle
FDMS86250	FDMS8460 FDMS3662 FDMS6673BZ FDMS0308S
FDMS030N06B	
FDMS037N08B	
FDMS5352	
FDMS6681Z-T	
FDMS8020	
FDMS8333L	
FDMS86101A	
FDMS86103L	
FDMS86201	
FDMS8622	
FDMS86252	
FDMS86252L	
FDMS86310	
FDMS86520	

Appendix A: Changed Products

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Product	Customer Part Number	Qualification Vehicle
FDMS030N06B		FDMS8460, FDMS3662, FDMS6673BZ, FDMS0308S
FDMS037N08B		FDMS8460, FDMS3662, FDMS6673BZ, FDMS0308S
FDMS5352		FDMS8460, FDMS3662, FDMS6673BZ, FDMS0308S
FDMS8020		FDMS8460, FDMS3662, FDMS6673BZ, FDMS0308S
FDMS8333L		FDMS8460, FDMS3662, FDMS6673BZ, FDMS0308S
FDMS86101A		FDMS8460, FDMS3662, FDMS6673BZ, FDMS0308S
FDMS86103L		FDMS8460, FDMS3662, FDMS6673BZ, FDMS0308S
FDMS86201		FDMS8460, FDMS3662, FDMS6673BZ, FDMS0308S
FDMS8622		FDMS8460, FDMS3662, FDMS6673BZ, FDMS0308S
FDMS86250		FDMS8460, FDMS3662, FDMS6673BZ, FDMS0308S
FDMS86252		FDMS8460, FDMS3662, FDMS6673BZ, FDMS0308S
FDMS86252L		FDMS8460, FDMS3662, FDMS6673BZ, FDMS0308S
FDMS86310		FDMS8460, FDMS3662, FDMS6673BZ, FDMS0308S
FDMS86520		FDMS8460, FDMS3662, FDMS6673BZ, FDMS0308S