



Final Product/Process Change Notification

Document #:FPCN23971XE

Issue Date:01 Nov 2022

Title of Change:	Transfer of FS50 wafer technology from Macronix (MXIC) Taiwan to onsemi South Portland Maine FAB
Proposed First Ship date:	06 Feb 2023 or earlier if approved by customer
Contact Information:	Contact your local onsemi Sales Office or SangSeop.Kim@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 Dongsun.Park@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:	As material from different FABs cannot be combined in to (1) box, Affected parts will be identified by lot # and date code Please see sample MPN on page 3 at the following link http://www.onsemi.com/pub_link/Collateral/LABELRM-D.PDF to see the location of the Diffused In notation.
Change Category:	Wafer Fab Change
Change Sub-Category(s):	Manufacturing Site Addition

Sites Affected:

onsemi Sites	External Foundry/Subcon Sites
onsemi Bucheon, Korea	Diodes, Maine, United States

Description and Purpose:

onsemi would like to inform our customers of the qualification of our FS50 Technology into the 8" Diodes, Maine, US FAB Foundry, and OLDFET MOSFET into onsemi Bunchon, Korea. This technology was processed out of our 6" foundry Macronix (MXIC) in Taiwan and 8" foundry Towerjazz Semiconductor in Japan. MXIC and Towerjazz announced it will discontinue this technology, thus necessitating the transfer.

While the typical language of the FPCN is to wait 90 days until shipments of first material, as there is no inventory of MXIC wafer, die, assembly WIP or finished goods either at onsemi or at our distributors, there will be no waiting period for approval or rejection of the PCN and deliveries will start immediately. If a customer does not wish to receive product from the new wafer FAB, they should take action to cancel or push out all future orders. onsemi can no longer provide material from the original MXIC FAB site. Customers should work with their local sales contacts to cancel or push orders as needed.

		From	To
IC	FAB Site	Macronix (MXIC) Taiwan	Diodes, Maine, US
	Wafer Size	6"	8"
MosFET	FAB Site	Towerjazz Semiconductor, Japan(Toyama)	onsemi Bucheon, Korea
	Wafer Size	8"	6"

There are no product material changes as a result of this change

There is no product marking change as a result of this change



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Reliability Data Summary:

QV DEVICE NAME: FL7733AMX

RMS: K72044, O80421, O81140

PACKAGE: SOIC8

Test	Specification	Condition	Interval	Results
HTOL	JESD22-A108	Ta=125°C, 100 % max rated Vcc	1008 hrs	0/231
HTSL	JESD22-A103	Ta= 150°C	1008 hrs	0/231
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C, Pre TC, uHAST, HAST for surface mount pkgs only		Pass
TC	JESD22-A104	Ta= -55°C to +150°C	1000 cyc	0/231
HAST	JESD22-A110	130°C, 85% RH, 33.3psig, bias	96 hrs	0/231
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/231

QV DEVICE NAME: GF001HN

RMS: K84873

PACKAGE: PDIP8

Test	Specification	Condition	Interval	Results
HTOL	JESD22-A108	Ta=125°C, 100 % max rated Vcc,	1008 hrs	0/77

QV DEVICE NAME: FSQ0270RNA

RMS: K84036, K84039

PACKAGE: PDIP8

Test	Specification	Condition	Interval	Results
HTSL	JESD22-A103	Ta= 150°C	1008 hrs	0/231
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C, Pre TC, uHAST, HAST for surface mount pkgs only		Pass
TC	JESD22-A104	Ta= -55°C to +150°C	1000 cyc	0/231
HAST	JESD22-A110	130°C, 85% RH, 33.3psig, bias	96 hrs	0/231
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/231

Electrical Characteristics Summary:

Electrical characteristics impact: specification limit change

	From	To
IDD_OLP	30 ~ 90uA	40 ~ 100uA
IHV	1.5 ~ 5mA	1.2 ~ 4.7mA



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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**.

Part Number	Qualification Vehicle
GF001HN	FL7733AMX, GF001HN, FSQ0270RNA

Appendix A: Changed Products**PCN#: FPCN23971XE**
Issue Date: Nov 01, 2022

DIKG: DIGI-KEY

Product	Customer Part Number	Qualification Vehicle	New Part Number	Replacement Supplier
GF001HN		FL7733AMX, GF001HN, FSQ0270RNA		