Final Product/Process Change Notification

Document #:FPCN23597XJ
Issue Date:18 May 2023

Title of Change:	Conversion of select onsemi, Czech Republic (Roznov) wafer fab technologies from 150mm to 200mm wafer diameter for UCX84X family devices.
Proposed First Ship date:	25 Aug 2023 or earlier if approved by customer
Contact Information:	Contact your local onsemi Sales Office or Jiri.Konarik@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 Tomas.Vajter@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:	The affected products will be identified with date code
Change Category:	Wafer Fab Change
Change Sub-Category(s):	Manufacturing Process Change

Sites Affected:

onsemi Sites	**External Foundry/Subcon Sites**
onsemi Roznov, Czech Republic	None

Description and Purpose:

This FPCN is to notify our customers of onsemi conversion of the products listed running at our onsemi, Roznov Czech Republic wafer fab technologies from 150mm to 200mm wafer diameter. The purpose is to increase the wafer FAB productivity and output capacity.

The 200mm wafer process has been developed and characterized to provide the same electrical and reliability performances as the 150mm process. This is a change in wafer diameter only; there will be no changes to assembly or test locations as a result of this change.

	Before Change Description	**After Change Description**
Wafer Diameter	150mm (6”)	200mm (8”)

A full electrical characterization over the temperature range has been performed for each product to check the device functionality and electrical specifications.

onsemi recommends that customers evaluate sample units in each associated application circuit to ensure there are no unexpected electrical incompatibilities.

Reliability Data Summary:

QV DEVICE NAME: UC3843BNG
RMS# O80801
PACKAGE: PDIP8

Test	Specification	Condition	Interval	Results
HTOL	JA108	TA = 125°C, Test at R/C/H, Vcc = 28V	2016 hrs	0/240
ELFR	JA018	TA = 125°C for 48 hrs, Test at R/H, Vcc = 28V	48hrs	0/2400
TC	JA104	Test at R/H	1000cyc	0/237
BS	AEC-Q100-001	Cpk 1.67, 30 bonds from 5units, after TC500 & TC1000		pass
BPS	M883 Method 2011	3gm Pull Force Min After TC500 & TC1000		pass
ESD HBM	AEC-Q100-002	c = 0, Test at R/H	4kV	0/3
ESD MM	AEC-Q100-003	c = 0, Test at R	200V	0/3
ED	ON Data Sheet	Cpk > 1.67 Test at R, H, C	Cpk>1.67	pass
LU	AEC-Q100-004	Test @ EP; Test & Stress at R	LU+>100mA LU->100mA	0/6

QV DEVICE NAME: NCV317LBDR2G
RMS# O67728
PACKAGE: SOIC8 CU SNGL HPBF (OSPI)

Test	Specification	Condition	Interval	Results
HTOL	JA108	TA = 115°C, Test at R/C/H, Vcc = 40V	2016 hrs	0/240
ELFR	JA018	TA = 115°C for 48 hrs, Test at R/H, Vcc = 40V	48hrs	0/2400
TC	JA104	Test at R/H	1000cyc	0/237
BS	AEC-Q100-001	Cpk 1.67, 30 bonds from 5units, after TC500 & TC1000		pass
BPS	M883 Method 2011	3gm Pull Force Min After TC500 & TC1000		pass
ESD HBM	AEC-Q100-002	c = 0, Test at R/H	2kV	0/3
ESD CDM		c = 0, Test at R/H	1kV	0/3
ESD MM	AEC-Q100-003	c = 0, Test at R/H	200V	0/3
ED	ON Data Sheet	Cpk > 1.67 Test at R, H, C	Cpk>1.67	pass
LU	AEC-Q100-004	Test @ EP; Test & Stress at R	LU+>100mA LU->100mA	0/6

QV DEVICE NAME: LM317LBDR2G
RMS# O76727
PACKAGE: SOIC8 CU SNGL HPBF (ASE)

Test	Specification	Condition	Interval	Results
HTOL	JA108	TA = 115°C, Test at R, Vcc = 40V	1008 hrs	0/80
TC	JA104	Test at R	500cyc	0/100
BS	AEC-Q100-001	Cpk 1.67, 30 bonds from 5units, after TC500 & TC1000		pass
BPS	M883 Method 2011	3gm Pull Force Min After TC500 & TC1000		pass
ED	ON Data Sheet	Cpk > 1.67 Test at R, H, C	Cpk>1.67	pass

QV DEVICE NAME: NCV33074ADR2G
RMS# O69241
PACKAGE: SOIC 14 COPPER PB FREE H

Test	Specification	Condition	Interval	Results
HTOL	JA108	TA = 85°C, Test at R/C/H, Vcc = 40V	2016 hrs	0/240
ELFR	JA018	TA = 85°C for 48 hrs, Test at R/H, Vcc = 40V	48hrs	0/2400
TC	JA104	Test at R/H	1000cyc	0/237
BS	AEC-Q100-001	Cpk 1.67, 30 bonds from 5units, after TC500 & TC1000		pass
BPS	M883 Method 2011	3gm Pull Force Min After TC500 & TC1000		pass
ESD HBM	AEC-Q100-002	c = 0, Test at R/H	2.2kV	0/3
ESD CDM		c = 0, Test at R/H	1kV	0/3
ED	ON Data Sheet	Cpk > 1.67 Test at R, H, C	Cpk>1.67	pass
LU	AEC-Q100-004	Test @ EP; Test & Stress at R &H	LU+>100mA LU->100mA	0/6

Electrical Characteristics Summary:

Electrical characteristics are not impacted. All Data Sheet specifications remain the same.

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
UC2842BD1R2G	UC3843BNG
UC2842BDR2G	UC3843BNG
UC2842BNG	UC3843BNG
UC2843BD1R2G	UC3843BNG
UC2843BDR2G	UC3843BNG
UC2843BNG	UC3843BNG
UC2844BD1R2G	UC3843BNG
UC2844BDR2G	UC3843BNG
UC2844BNG	UC3843BNG
UC2845BD1R2G	UC3843BNG
UC2845BDR2G	UC3843BNG
UC2845BNG	UC3843BNG
UC3845BVDR2G	UC3843BNG
UC3845BVD1R2G	UC3843BNG
UC3845BNG	UC3843BNG
UC3845BDR2G	UC3843BNG

UC3845BD1R2G	UC3843BNG
UC3845BD1G	UC3843BNG
UC3844BVDR2G	UC3843BNG
UC3842BD1R2G	UC3843BNG
UC3842BDR2G	UC3843BNG
UC3842BNG	UC3843BNG
UC3842BVD1R2G	UC3843BNG
UC3843BD1G	UC3843BNG
UC3843BD1R2G	UC3843BNG
UC3843BDR2G	UC3843BNG
UC3843BNG	UC3843BNG
UC3843BVD1R2G	UC3843BNG
UC3843BVDR2G	UC3843BNG
UC3844BD1R2G	UC3843BNG
UC3844BDR2G	UC3843BNG
UC3844BNG	UC3843BNG
UC3844BVD1R2G	UC3843BNG