



Final Product/Process Change Notification

Document #:FPCN23597ZE

Issue Date:01 Apr 2022

Title of Change:	Conversion of select onsemi, Czech Republic (Roznov) wafer fab technologies from 150mm to 200mm wafer diameter - NCV78M, NCV78L.
Proposed Changed Material First Ship Date:	08 Oct 2022 or earlier if approved by customer
Current Material Last Order Date:	N/A <i>Orders received after the Current Material Last Order Date expiration are to be considered as orders for new changed material as described in this PCN. Orders for current (unchanged) material after this date will be per mutual agreement and current material inventory availability.</i>
Current Material Last Delivery Date:	N/A <i>The Current Material Last Delivery Date may be subject to change based on build and depletion of the current (unchanged) material inventory</i>
Product Category:	Active components – Integrated circuits
Contact information:	Contact your local onsemi Sales Office or Jan.Gryzbon@onsemi.com
PCN Samples Contact:	Contact your local onsemi Sales Office to place sample order. Sample requests are to be submitted no later than 45 days after publication of this change notification. Samples delivery timing will be subject to request date, sample quantity and special customer packing/label requirements.
Sample Availability Date:	15 Apr 2022
PPAP Availability Date:	15 Apr 2022
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. The change will be implemented at 'Proposed Change Material First Ship Date' in compliance to J-STD-46 or ZVEI, or earlier upon customer approval, or per our signed agreements. onsemi will consider this proposed change and it's conditions acceptable, unless an inquiry is made in writing within 45 days of delivery of this notice. To do so, contact PCN.Support@onsemi.com .
Change Category	
Category	Type of Change
Process - Wafer Production	New wafer diameter

Description and Purpose:

Conversion of select onsemi, Czech Republic (Roznov) wafer fab technologies from 150mm to 200mm wafer diameter. The purpose is to increase the wafer fab productivity.

The 200mm wafer process is being created at Roznov in order to get 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 changed.

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

Qualification tests are designed to show that the reliability of transferred devices will continue to meet or exceed onsemi standards.

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

Reason / Motivation for Change:	Process/Materials Change		
Anticipated impact on fit, form, function, reliability, product safety or manufacturability:	The device has been qualified and validated based on the same Product Specification. The device has successfully passed the qualification tests. Potential impacts can be identified, but due to testing performed by onsemi in relation to the PCN, associated risks are verified and excluded. No anticipated impacts.		
Sites Affected:			
onsemi Sites		External Foundry/Subcon Sites	
onsemi Roznov, Czech Republic		None	
Marking of Parts/ Traceability of Change:	The affected products will be identified with date code		

Reliability Data Summary:

QV DEVICE NAME: NCV78M05BDTRKG

RMS# S78980

PACKAGE: DPAK-3

Test	Specification	Condition	Interval	Results
HTOL	JA108	Ta= 125°C, Test @ R/C/H	2008 hrs	0/240
PC	JA112 JA113	SMD only, Test @ 0 & EP		0/372
SAT		Test pre- and post- PC		pass
ELFR	JA018	TA = 125°C for 48 hrs, Test @ R/H	48hrs	0/2400
TC	JA104	Test @ R/H	1000cyc	0/276
HAST	JA110	130°C/85% RH, Test @ R/H	192hrs	0/270
BS	AEC-Q100-001	Cpk 1.67, 30 bonds from 5units		pass
BPS	M883 Method 2011	3gm Pull Force Min After TC		pass
ESD HBM	AEC-Q100-002	c = 0, Test @ R/H	2kV	0/3
ESD MM	AEC-Q100-003	c = 0, Test @ R/H	200V	0/3
ESD CDM	AEC-Q100-011	c = 0, Test @ R/H	1kV	0/3
ED	ON Data Sheet	Cpk > 1.67 Test @ R, H, C	Cpk>1.67	pass
LU	AEC-Q100-004	Test @ EP; Test & Stress @ R/H	LU+>100mA LU->100mA	0/6

NOTE: AEC-1paper is attached.

To view attachments:

1. Download pdf copy of the PCN to your computer
2. Open the downloaded pdf copy of the PCN
3. Click on the paper clip icon available on the menu provided in the left/bottom portion of the screen to reveal the Attachment field
4. Then click on the attached file/s

Electrical Characteristics Summary:

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



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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**.

Current Part Number	New Part Number	Qualification Vehicle
NCV78M12BDTRKG	NA	NCV78M05BDTRKG
NCV78M08BDTRKG	NA	NCV78M05BDTRKG
NCV78M05BDTRKG	NA	NCV78M05BDTRKG
NCV78L15ABDR2G	NA	NCV78M05BDTRKG
NCV78L12ABDR2G	NA	NCV78M05BDTRKG
NCV78L08ABDR2G	NA	NCV78M05BDTRKG
NCV78L05ABDR2G	NA	NCV78M05BDTRKG

Appendix A: Changed Products

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Issue Date: Apr 01, 2022

Product	Customer Part Number	Qualification Vehicle	New Part Number	Replacement Supplier
NCV78M12BDTRKG		NCV78M05BDTRKG	NA	
NCV78M05BDTRKG		NCV78M05BDTRKG	NA	
NCV78L12ABDR2G		NCV78M05BDTRKG	NA	
NCV78L08ABDR2G		NCV78M05BDTRKG	NA	
NCV78L05ABDR2G		NCV78M05BDTRKG	NA	
NCV78M08BDTRKG		NCV78M05BDTRKG	NA	