



## Final Product/Process Change Notification

Document #:FPCN25572X29

Issue Date: 14 Feb 2024

<b>Title of Change:</b>	Update to <b>FPCN25572X</b> - To include the reliability data for QFN-14 package Qualification of Vanguard Fab and Assembly related changes for Logic parts.
<b>Proposed First Ship date:</b>	21 May 2024 or earlier if approved by customer
<b>Contact Information:</b>	Contact your local onsemi Sales Office or <a href="mailto:logic.fpcn@onsemi.com">logic.fpcn@onsemi.com</a>
<b>PCN Samples Contact:</b>	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.
<b>Additional Reliability Data:</b>	Contact your local onsemi Sales Office or <a href="mailto:ChangKit.Mok@onsemi.com">ChangKit.Mok@onsemi.com</a>
<b>Type of Notification:</b>	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 <a href="mailto:PCN.Support@onsemi.com">PCN.Support@onsemi.com</a>
<b>Marking of Parts/ Traceability of Change:</b>	Custom source on label will show TW instead of US to indicate new die source from Vanguard. Changed material may be identified by plant code or lot code too.
<b>Change Category:</b>	Wafer Fab Change, Assembly Change, Test Change
<b>Change Sub-Category(s):</b>	Marking Change, Manufacturing Site Transfer, Datasheet/Product Doc change

### Sites Affected:

#### onsemi Sites

onsemi Tarlac, Philippines

#### External Foundry/Subcon Sites

Vanguard International Semiconductor, Taiwan

### Description and Purpose:

With reference to **FPCN25572X**, this FPCN presents the information solely for QFN-14 and the pertinent reliability data.

	From	To
Fab Site	Diodes Incorporated (Diodes)	Vanguard International Semiconductor (VIS)

### Assembly and test changes as shown in the table below:

	From	To
Assembly Site	Hana Micro.	onsemi Tarlac
Test Site	Hana Micro.	onsemi Tarlac
Leadframe	C194 PPF	EFTEC PPF
Die Attach	ABLETHERM 8600	CRM-1076WB
Bond Wire	1 mil Au	1 mil PCC
Mold Compound	CEL9220HF13H	G770HMD

Marking Change are shown in the table below:

	From	To
Marking	<p>Z= ASSY Plant Code XY = Two Digit Date Code Format (Year &amp; Week) KK = Two Digit Lot Run Traceability Code X = Device Code</p>	<p>X = Device Code A = Assembly Site L = Wafer Lot Number Y = Year of Production, Last Number WW = Work Week Number</p>

## Reliability Data Summary:

QV DEVICE NAME: 74LCX14BQX

RMS : S89447

PACKAGE : QFN14 3.0x2.5

Test	Specification	Condition	Interval	Results
High Temperature Operating Life	JESD22-A108	Ta=125°C, 100 % max rated Vcc	1008 hrs	0/77
High Temperature Storage Life	JESD22-A103	Ta= 150°C	1008 hrs	0/77
Preconditioning	J-STD-020 JESD-A113	MSL 1 @ 260°C, Pre TC, uHAST, HAST for surface mount pkgs only	-	0/231
Temperature Cycling	JESD22-A104	Ta= -65°C to +150°C	500 cyc	0/77
Highly Accelerated Stress Test	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hrs	0/77
Unbiased Highly Accelerated Stress Test	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/77
Resistance to Solder Heat	JESD22- B106	Ta = 265°C, 10 sec	-	0/10

## Electrical Characteristics Summary:

	From	To
Datasheet	Current Revision	New Revision
Absolute Max Voltage Rating	7 V	6.5 V
Recommended Operating Voltage Range	2.0 – 3.6 V	1.65 – 5.5 V
Recommended Operating Temperature Range	-40 – 85°C	-40 – 125°C



## Final Product/Process Change Notification

Document #:FPCN25572X29

Issue Date: 14 Feb 2024

### 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
74LCX74BQX	74LCX14BQX
74LCX32BQX	74LCX14BQX
74LCX14BQX	74LCX14BQX
74LCX126BQX	74LCX14BQX
74LCX125BQX	74LCX14BQX
74LCX11BQX	74LCX14BQX
74LCX08BQX	74LCX14BQX
74LCX04BQX	74LCX14BQX
74LCX00BQX	74LCX14BQX

## Appendix A: Changed Products

PCN#: FPCN25572X29  
Issue Date: Feb 14, 2024

DIKG: DIGI-KEY

Product	Customer Part Number	Qualification Vehicle	New Part Number	Replacement Supplier
74LCX74BQX		74LCX14BQX	#NONE	
74LCX14BQX		74LCX14BQX	#NONE	
74LCX126BQX		74LCX14BQX	#NONE	
74LCX125BQX		74LCX14BQX	#NONE	
74LCX11BQX		74LCX14BQX	#NONE	
74LCX08BQX		74LCX14BQX	#NONE	
74LCX04BQX		74LCX14BQX	#NONE	
74LCX00BQX		74LCX14BQX	#NONE	
74LCX32BQX		74LCX14BQX	#NONE	