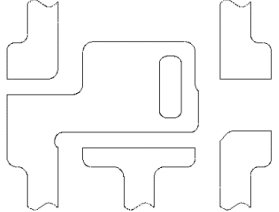
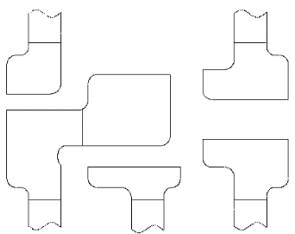


<b>Title of Change:</b>	Qualification of Vanguard Minigates in SC74A Package	
<b>Proposed First Ship date:</b>	15 Jun 2023 or earlier if approved by customer	
<b>Contact Information:</b>	Contact your local onsemi Sales Office or <a href="mailto:logic.fpcn@onsemi.com">logic.fpcn@onsemi.com</a>	
<b>PCN 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 JP (TPSCo) to indicate new die source from Vanguard.	
<b>Change Category:</b>	Wafer Fab Change, Assembly Change	
<b>Change Sub-Category(s):</b>	Manufacturing Site Transfer, Material Change	
<b>Sites Affected:</b>		
<b>onsemi Sites</b>	<b>External Foundry/Subcon Sites</b>	
onsemi Leshan, China	Vanguard International Semiconductor, Taiwan	
<b>Description and Purpose:</b>		
This Final Notification announces that onsemi is qualifying Vanguard wafer fabrication for SC74A package.		
	<b>From</b>	<b>To</b>
Lead frame for SC74A	SC74A A42 Cu LF  Lead frame drawing is for reference only	SC74A A42 Cu LF (new design, smaller flag size)  Lead frame drawing is for reference only
Die Source	TPSCo	Vanguard
There is no product marking change as a result of this change.		



# Final Product/Process Change Notification

Document #:FPCN24889X

Issue Date:10 Mar 2023

## Reliability Data Summary:

**QV DEVICE NAME:** NL27WZ14DBVT1G  
**RMS:** S82713 / L85044  
**PACKAGE:** SC74

Test	Specification	Condition	Interval	Results
Earlier Life Failure Rate	JESD22-A108	Ta=125°C, 100 % max rated Vcc	48 hrs	0/4800
High Temperature Operating Life	JESD22-A108	Ta=125°C, 100 % max rated Vcc	1008 hrs	0/462
High Temperature Storage Life	JESD22-A103	Ta= 150°C	1008 hrs	0/462
Preconditioning	J-STD-020 JESD-A113	MSL 1 @ 260°C, Pre TC, uHAST, HAST for surface mount pkgs only	-	0/1386
Temperature Cycling	JESD22-A104	Ta= -65°C to +150°C	500 cyc	0/462
Highly Accelerated Stress Test	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hrs	0/462
Unbiased Highly Accelerated Stress Test	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/462
Resistance to Solder Heat	JESD22- B106	Ta = 265°C, 10 sec	-	0/60

**QV DEVICE NAME:** MC74VHC1G14DBVT1G  
**RMS:** S82725  
**PACKAGE:** SC74A

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:

Electrical characteristics available upon request.



# Final Product/Process Change Notification

Document #:FPCN24889X

Issue Date:10 Mar 2023

**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
MC74HC1G00DBVT1G	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
NC7ST08M5X	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
NC7ST32M5X	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
NC7SU04M5X	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
NC7SZ00M5X	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
NC7SZ02M5X	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
NC7SZ04M5X	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
NC7SZ05M5X	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
NC7SZ08M5X	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
NC7SZ14M5X	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
NC7SZ32M5X	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
NC7SZ38M5X	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
NC7SZ86M5X	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
NC7SZ125M5X	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
NC7SZ126M5X	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
NL17SZ00DBVT1G	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
NL17SZ02DBVT1G	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
NL17SZ04DBVT1G	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
NC7S02M5X	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
NC7ST86M5X	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
NC7SZU04M5X	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
NL17SZU04DBVT1G	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
NL17SZ126DBVT1G	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
NL17SZ125DBVT1G	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
NL17SZ86DBVT1G	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
NL17SZ38DBVT1G	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
NL17SZ32DBVT1G	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
NL17SZ17DBVT1G	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
NL17SZ16DBVT1G	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G



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NL17SZ14DBVT1G	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
NL17SZ08DBVT1G	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
NL17SZ07DBVT1G	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
NL17SZ06DBVT1G	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
NL17SZ05DBVT1G	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
NC7ST04M5X	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
NC7ST02M5X	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
NC7ST00M5X	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
NC7S86M5X	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
NC7S32M5X	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
NC7S14M5X	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
NC7S08M5X	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
NC7S04M5X	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
NC7S00M5X	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
MC74VHC1GU04DBVT1G	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
MC74VHC1GT126DBVT1G	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
MC74VHC1GT125DBVT1G	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
MC74VHC1GT50DBVT1G	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
MC74VHC1GT32DBVT1G	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
MC74VHC1GT14DBVT1G	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
MC74VHC1GT08DBVT1G	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
MC74VHC1GT04DBVT1G	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
MC74VHC1GT02DBVT1G	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
MC74VHC1GT00DBVT1G	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
MC74VHC1G135DBVT1G	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
MC74VHC1G132DBVT1G	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
MC74VHC1G126DBVT1G	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
MC74VHC1G125DBVT1G	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
MC74VHC1G50DBVT1G	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
MC74VHC1G32DBVT1G	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
MC74VHC1G14DBVT1G	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
MC74VHC1G09DBVT1G	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
MC74VHC1G08DBVT1G	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
MC74VHC1G07DBVT1G	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G



## Final Product/Process Change Notification

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MC74VHC1G04DBVT1G	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
MC74VHC1G03DBVT1G	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
MC74VHC1G02DBVT1G	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
MC74VHC1G00DBVT1G	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
MC74HC1GU04DBVT1G	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
MC74HC1G32DBVT1G	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
MC74HC1G14DBVT1G	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
MC74HC1G08DBVT1G	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
MC74HC1G04DBVT1G	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G
MC74HC1G02DBVT1G	NL27WZ14DBVT1G,MC74VHC1G14DBVT1G

**Appendix A: Changed Products**

**PCN#: FPCN24889X**  
**Issue Date: Mar 10, 2023**

DIKG: DIGI-KEY

Product	Customer Part Number	Qualification Vehicle	New Part Number	Replacement Supplier
NC7ST08M5X		NL27WZ14DBVT1G,MC74VHC1G14D	BN1G	
NC7SU04M5X		NL27WZ14DBVT1G,MC74VHC1G14D	BN1G	
NC7SZ00M5X		NL27WZ14DBVT1G,MC74VHC1G14D	BN1G	
NC7SZ02M5X		NL27WZ14DBVT1G,MC74VHC1G14D	BN1G	
NC7SZ04M5X		NL27WZ14DBVT1G,MC74VHC1G14D	BN1G	
NC7SZ05M5X		NL27WZ14DBVT1G,MC74VHC1G14D	BN1G	
NC7SZ08M5X		NL27WZ14DBVT1G,MC74VHC1G14D	BN1G	
NC7SZ14M5X		NL27WZ14DBVT1G,MC74VHC1G14D	BN1G	
NC7SZ32M5X		NL27WZ14DBVT1G,MC74VHC1G14D	BN1G	
NC7SZ38M5X		NL27WZ14DBVT1G,MC74VHC1G14D	BN1G	
NC7SZ86M5X		NL27WZ14DBVT1G,MC74VHC1G14D	BN1G	
NC7SZ125M5X		NL27WZ14DBVT1G,MC74VHC1G14D	BN1G	
NC7SZ126M5X		NL27WZ14DBVT1G,MC74VHC1G14D	BN1G	
NL17SZ02DBVT1G		NL27WZ14DBVT1G,MC74VHC1G14D	BN1G	
NC7S02M5X		NL27WZ14DBVT1G,MC74VHC1G14D	BN1G	
NC7ST86M5X		NL27WZ14DBVT1G,MC74VHC1G14D	BN1G	
NC7SZU04M5X		NL27WZ14DBVT1G,MC74VHC1G14D	BN1G	
NL17SZ125DBVT1G		NL27WZ14DBVT1G,MC74VHC1G14D	BN1G	
NL17SZ14DBVT1G		NL27WZ14DBVT1G,MC74VHC1G14D	BN1G	
NL17SZ08DBVT1G		NL27WZ14DBVT1G,MC74VHC1G14D	BN1G	
NC7ST04M5X		NL27WZ14DBVT1G,MC74VHC1G14D	BN1G	
NC7ST02M5X		NL27WZ14DBVT1G,MC74VHC1G14D	BN1G	
NC7ST00M5X		NL27WZ14DBVT1G,MC74VHC1G14D	BN1G	
NC7S86M5X		NL27WZ14DBVT1G,MC74VHC1G14D	BN1G	
NC7S32M5X		NL27WZ14DBVT1G,MC74VHC1G14D	BN1G	
NC7S14M5X		NL27WZ14DBVT1G,MC74VHC1G14D	BN1G	
NC7S08M5X		NL27WZ14DBVT1G,MC74VHC1G14D	BN1G	
NC7S04M5X		NL27WZ14DBVT1G,MC74VHC1G14D	BN1G	
NC7S00M5X		NL27WZ14DBVT1G,MC74VHC1G14D	BN1G	
MC74VHC1GT126DBVT1G		NL27WZ14DBVT1G,MC74VHC1G14D	BN1G	
MC74VHC1GT125DBVT1G		NL27WZ14DBVT1G,MC74VHC1G14D	BN1G	
MC74VHC1GT50DBVT1G		NL27WZ14DBVT1G,MC74VHC1G14D	BN1G	
MC74VHC1GT08DBVT1G		NL27WZ14DBVT1G,MC74VHC1G14D	BN1G	
MC74VHC1G125DBVT1G		NL27WZ14DBVT1G,MC74VHC1G14D	BN1G	
MC74VHC1G32DBVT1G		NL27WZ14DBVT1G,MC74VHC1G14D	BN1G	
MC74VHC1G14DBVT1G		NL27WZ14DBVT1G,MC74VHC1G14D	BN1G	
MC74HC1G32DBVT1G		NL27WZ14DBVT1G,MC74VHC1G14D	BN1G	
MC74HC1G08DBVT1G		NL27WZ14DBVT1G,MC74VHC1G14D	BN1G	
MC74HC1G04DBVT1G		NL27WZ14DBVT1G,MC74VHC1G14D	BN1G	
NC7ST32M5X		NL27WZ14DBVT1G,MC74VHC1G14D	BN1G	