



Initial Product/Process Change Notification

Document #: IPCN24802X

Issue Date: 29 Sep 2022

Title of Change:	Qualification of Minigates Vanguard die in SC88 and SC88A Package.			
Proposed First Ship date:	31 Mar 2023 or earlier if approved by customer			
Contact Information:	Contact your local onsemi Sales Office or logic.fpcn@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.			
Type of Notification:	This is an Initial Product/Process Change Notification (IPCN) sent to customers. An IPCN is an advance notification about an upcoming change and contains general information regarding the change details and devices affected. It also contains the preliminary reliability qualification plan. The completed qualification and characterization data will be included in the Final Product/Process Change Notification (FPCN). This IPCN notification will be followed by a Final Product/Process Change Notification (FPCN) at least 90 days prior to implementation of the change. In case of questions, contact < PCN.Support@onsemi.com >			
Marking of Parts/ Traceability of Change:	Custom source on label will show TW instead of JP (TPSCo) to indicate new die source from Vanguard.			
Change Category:	Assembly Change, Wafer Fab Change			
Change Sub-Category(s):	Manufacturing Process Change, Manufacturing Site Addition			
Sites Affected:				
onsemi Sites			External Foundry/Subcon Sites	
onsemi Leshan, China			Vanguard International Semiconductor, Taiwan	
onsemi Seremban, Malaysia				
Description and Purpose:				
This Initial Notification announces that onsemi is qualifying Vanguard wafer fabrication for SC88 and SC88A package.				
SC88 and SC88A package:				
	From			To
Assembly Site	onsemi Seremban	Leshan Phoenix Semiconductor		Leshan Phoenix Semiconductor
Die Source	TPSCo	TPSCo	TPSCO or Vanguard	TPSCO or Vanguard
<p><i>*Only those approved OPNs under FPCN23285X are running at both sites (SBN and Leshan), else Leshan is the only site for before. Those * in the qualification vehicle column are the OPNs running at both sites.</i></p> <p>There is no product marking change as a result of this change.</p>				



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Qualification Plan:

QV DEVICE NAME: NL27WZ14DFT2G

RMS: L85492 / L82712

PACKAGE: SC88

Test	Specification	Condition	Interval
HTOL	JESD22-A108	Ta=125°C, 100 % max rated Vcc	1008 hrs
ELFR	JESD22-A108	Ta=125°C, 100 % max rated Vcc	48 hrs
HTSL	JESD22-A103	Ta= 150°C	1008 hrs
PC+TC	JESD22-A104	Ta= -65°C to + 150°C	500 cyc
PC+HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias Vcc	96 hrs
PC+uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs
PC	J-STD-020 / JESD-A113	MSL 1 @260 °C	-
RSH	JESD22- B106	Ta = 265C, 10 sec	-

QV DEVICE NAME: MC74VHC1G14DFT1G

RMS: S85493

PACKAGE: SC88A

Test	Specification	Condition	Interval
HTOL	JESD22-A108	Ta=125°C, 100 % max rated Vcc	1008 hrs
HTSL	JESD22-A103	Ta= 150°C	1008 hrs
PC+TC	JESD22-A104	Ta= -65°C to + 150°C	500 cyc
PC+HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias Vcc	96 hrs
PC+uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs
PC	J-STD-020 / JESD-A113	MSL 1 @260 °C	-
RSH	JESD22- B106	Ta = 265C, 10 sec	-

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](#).

To view attached Parts List:

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

PCN Product List Addendum for:

Customer Contact Name: Drop box Digi-Key

Customer Contact Email: digikey.supplierinfo@digikey.com

Appendix A: Changed Products

DIKG: DIGI-KEY (page 1 of 5)

Product	Customer Part Number	Qualification Vehicle	New Part Number	Replacement Supplier
M74VHC1G125DFT1G		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
M74VHC1G126DFT1G		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
M74VHC1G126DFT2G		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
M74VHC1G132DFT1G		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
M74VHC1G132DFT2G		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
M74VHC1G135DFT1G		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
M74VHC1G135DFT2G		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
M74VHC1GT00DFT1G		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
M74VHC1GT00DFT2G		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
M74VHC1GT02DFT1G		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
M74VHC1GT02DFT2G		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
M74VHC1GT04DFT1G		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
M74VHC1GT04DFT2G		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
M74VHC1GT08DFT1G		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
M74VHC1GT08DFT2G		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
M74VHC1GT14DFT1G		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
M74VHC1GT14DFT2G		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
M74VHC1GT32DFT1G		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
M74VHC1GT32DFT2G		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
M74VHC1GT50DFT1G		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
M74VHC1GT50DFT2G		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
M74VHC1GT86DFT1G		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
M74VHC1GT86DFT2G		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
M74VHC1GT125DF1G		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
M74VHC1GT125DF2G		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
M74VHC1GT126DF1G		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
M74VHC1GT126DF2G		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
M74VHC1GU04DFT1G		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
M74VHC1GU04DFT2G		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
MC74HC1G00DFT1G		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	

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Product	Customer Part Number	Qualification Vehicle	New Part Number	Replacement Supplier
MC74HC1G00DFT2G		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
MC74HC1G02DFT2G		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
MC74HC1G04DFT1G		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
MC74HC1G04DFT2G		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
MC74HC1G08DFT1G		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
MC74HC1G08DFT2G		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
MC74HC1G14DFT1G		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
M74VHC1G125DFT2G		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
MC74HC1G32DFT1G		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
MC74HC1G14DFT2G		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
MC74HC1GU04DFT1G		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
MC74HC1G32DFT2G		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
MC74HC1GU04DFT2G		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
MC74VHC1G00DFT1G		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
MC74VHC1G01DFT1G		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
MC74VHC1G00DFT2G		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
MC74VHC1G02DFT2G		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
MC74VHC1G02DFT1G		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
MC74VHC1G03DFT2G		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
MC74VHC1G03DFT1G		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
MC74VHC1G04DFT2G		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
MC74VHC1G04DFT1G		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
MC74VHC1G05DFT1G		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
MC74VHC1G07DFT1G		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
MC74VHC1G05DFT2G		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
MC74VHC1G08DFT1G		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
MC74VHC1G07DFT2G		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
MC74VHC1G08EDFT2G		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
MC74VHC1G08DFT2G		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
MC74VHC1G09DFT2G		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	

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Product	Customer Part Number	Qualification Vehicle	New Part Number	Replacement Supplier
MC74VHC1G09DFT1G		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
MC74VHC1G14DFT2G		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
MC74VHC1G14DFT1G		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
MC74VHC1G32DFT2G		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
MC74VHC1G32DFT1G		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
MC74VHC1G50DFT1G		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
MC74VHC1G32EDFT2G		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
MC74VHC1G86DFT1G		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
MC74VHC1G50DFT2G		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
MC74VHC1G125DFT1G		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
MC74VHC1G86DFT2G		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
MC74VHC1GU04DF1G		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
MC74VHC1GT08EDFT2G		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NC7S02P5X		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NC7S00P5X		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NC7S08P5X		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NC7S04P5X		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NC7S32P5X		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NC7S14P5X		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NC7ST00P5X		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NC7S86P5X		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NC7ST08P5X		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NC7ST04P5X		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NC7ST86P5X		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NC7ST32P5X		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NC7SZ00P5X		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NC7SU04P5X		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NC7SZ04P5X		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NC7SZ02P5X		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NC7SZ08P5X		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	

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Product	Customer Part Number	Qualification Vehicle	New Part Number	Replacement Supplier
NC7SZ05P5X		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NC7SZ11P6X		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NC7SZ10P6X		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NC7SZ14P5X		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NC7SZ27P6X		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NC7SZ19P6X		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NC7SZ38P5X		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NC7SZ32P5X		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NC7SZ58P6X		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NC7SZ57P6X		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NC7SZ86P5X		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NC7SZ125P5X		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NC7SZ157P6X		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NC7SZ126P5X		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NC7SZ332P6X		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NC7SZ175P6X		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NC7SZ374P6X		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NC7SZ373P6X		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NC7SZU04P5X		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NC7SZ386P6X		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NC7WZ07P6X		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NC7WZ04P6X		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NC7WZ14EP6X		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NC7WZ16P6X		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NC7WZ14P6X		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NC7WZU04P6X		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NC7WZ17P6X		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NL7SZ19DFT2G		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NL7SZ18DFT2G		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NL7SZ58DFT2G		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	

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Product	Customer Part Number	Qualification Vehicle	New Part Number	Replacement Supplier
NL7SZ57DFT2G		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NL17SZ00DFT2G		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NL7SZ97DFT2G		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NL17SZ04DFT2G		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NL17SZ02DFT2G		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NL17SZ07DFT2G		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NL17SZ06DFT2G		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NL17SZ08DFT2G		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NL17SZ14DFT2G		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NL17SZ08EDFT2G		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NL27WZU04DFT2G		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NC7SZ18P6X		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NL27WZ16DFT2G		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NL27WZ17DFT2G		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NL27WZ07DFT2G		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NL27WZ14DFT2G		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NL27WZ04DFT2G		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NL27WZ06DFT2G		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NL27WZ04DFT1G		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NL17SZ126DFT2G		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NL17SZU04DFT2G		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NL17SZ86DFT2G		*NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NL17SZ125DFT2G		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NL17SZ17DFT2G		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NL17SZ32DFT2G		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	
NL17SZ16DFT2G		NL27WZ14DFT2G, MC74VHC1G14DFT1G	NA	