

Title of Change:	Qualification of Vanguard Minigates in SC74 Package
Proposed First Ship date:	27 Aug 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.
Additional Reliability Data:	Contact your local onsemi Sales Office or ChangKit.Mok@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:	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):	Material Change, Manufacturing Site Transfer

Sites Affected:

onsemi Sites

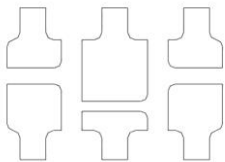
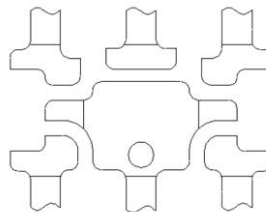
onsemi Leshan, China

External Foundry/Subcon Sites

Vanguard International Semiconductor, Taiwan

Description and Purpose:

This Final Notification announces that onsemi is qualifying Vanguard wafer fabrication for SC74 package. Besides Vanguard wafers, do take note that new lead frame and new mold compound are also being qualified as part of this change.

	From	To
Lead frame	 Lead frame drawing is for reference only	 Lead frame drawing is for reference only
Mold Compound	Showa Denko GE200F HWG-S	Hysol GR640 HV
Die Source	TPSCo	Vanguard

There is no product marking change as a result of this change.



Final Product/Process Change Notification

Document #:FPCN24889XA

Issue Date:20 May 2023

Reliability Data Summary:

QV DEVICE NAME: NL27WZ14DBVT1G

RMS: S82713

PACKAGE: SC74

Test	Specification	Condition	Interval	Results
Earlier Life Failure Rate	JESD22-A108	Ta=125°C, 100 % max rated Vcc	48 hrs	0/2400
High Temperature Operating Life	JESD22-A108	Ta=125°C, 100 % max rated Vcc	1008 hrs	0/231
High Temperature Storage Life	JESD22-A103	Ta= 150°C	1008 hrs	0/231
Preconditioning	J-STD-020 JESD-A113	MSL 1 @ 260°C, Pre TC, uHAST, HAST for surface mount pkgs only	-	0/693
Temperature Cycling	JESD22-A104	Ta= -65°C to +150°C	500 cyc	0/231
Highly Accelerated Stress Test	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hrs	0/231
Unbiased Highly Accelerated Stress Test	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/231
Resistance to Solder Heat	JESD22- B106	Ta = 265°C, 10 sec	-	0/30

Electrical Characteristics Summary:

Electrical characteristics available upon request.

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
NL27WZ07DBVT1G	NL27WZ14DBVT1G
NL27WZ17DBVT1G	NL27WZ14DBVT1G
NL27WZ06DBVT1G	NL27WZ14DBVT1G
NL17SZ373DBVT1G	NL27WZ14DBVT1G
NL27WZ16DBVT1G	NL27WZ14DBVT1G
NL17SZ27DBVT1G	NL27WZ14DBVT1G
NL17SZ374DBVT1G	NL27WZ14DBVT1G
NL7SZ19DBVT1G	NL27WZ14DBVT1G
NL17SZ386DBVT1G	NL27WZ14DBVT1G
NL17SZ157DBVT1G	NL27WZ14DBVT1G
NL7SZ18DBVT1G	NL27WZ14DBVT1G
NL27WZU04DBVT1G	NL27WZ14DBVT1G
NL17SZ10DBVT1G	NL27WZ14DBVT1G
NL7SZ58DBVT1G	NL27WZ14DBVT1G
NL27WZ14DBVT1G	NL27WZ14DBVT1G



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NL17SZ175DBVT1G	NL27WZ14DBVT1G
NL7SZ97DBVT1G	NL27WZ14DBVT1G
NL17SZ332DBVT1G	NL27WZ14DBVT1G
NL27WZ04DBVT1G	NL27WZ14DBVT1G
NL7SZ57DBVT1G	NL27WZ14DBVT1G
NL17SZ11DBVT1G	NL27WZ14DBVT1G

Appendix A: Changed Products

PCN#: FPCN24889XA
Issue Date: May 19, 2023

DIKG: DIGI-KEY

Product	Customer Part Number	Qualification Vehicle	New Part Number	Replacement Supplier
NL17SZ373DBVT1G		NL27WZ14DBVT1G	NA	
NL17SZ374DBVT1G		NL27WZ14DBVT1G	NA	
NL7SZ19DBVT1G		NL27WZ14DBVT1G	NA	
NL17SZ386DBVT1G		NL27WZ14DBVT1G	NA	
NL17SZ175DBVT1G		NL27WZ14DBVT1G	NA	
NL27WZU04DBVT1G		NL27WZ14DBVT1G	NA	
NL17SZ10DBVT1G		NL27WZ14DBVT1G	NA	