



Final Product/Process Change Notification

Document #:FPCN25572Z33

Issue Date:16 Aug 2024

Title of Change:	Update to FPCN25572Z - To include the reliability data for NLV68SZ126MN2TWG part for the Qualification of Vanguard Fab and Assembly related changes for Logic Parts.	
Proposed Changed Material First Ship Date:	23 Feb 2025 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 logic.fpcn@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:	08 Aug 2024	
PPAP Availability Date:	30 Aug 2024	
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. 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	Move of all or part of wafer fab to a different location/site/subcontractor	
Process - Assembly	Change of mold compound, Die attach material, Change of wire bonding	
Description and Purpose:		
With reference to FPCN25572X , this FPCN presents the information solely for NLV68SZ126MN2TWG and the pertinent reliability data.		
	From	To
Fab Site	TPSCO	Vanguard International Semiconductor (VIS)
QFN20 2.5 x 3.5 (NLV68SZ126MN2TWG)		
	From	To
Die Attach	CRM-1084P	CRM-1076WB
Bond Wire	0.8 mil PCC	1 mil PCC
Mold Compound	EME-G760	EME-G770HM Type D



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Reason / Motivation for Change:	Source/Supply/Capacity Changes 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 Tarlac, Philippines		Vanguard International Semiconductor, Taiwan																																										
Marking of Parts/ Traceability of Change:	Custom source on label will show TW instead of US/JP to indicate new die source from Vanguard. Changed material may be identified by plant code or lot code too.																																											
Reliability Data Summary: QV DEVICE NAME : NLV68SZ126MN2TWG RMS : S89442 PACKAGE : QFN20																																												
<table border="1"><thead><tr><th>Test</th><th>Specification</th><th>Condition</th><th>Interval</th><th>Results</th></tr></thead><tbody><tr><td>High Temperature Operating Life</td><td>JESD22-A108</td><td>Ta=125°C, 100 % max rated Vcc</td><td>1008 hrs</td><td>0/231</td></tr><tr><td>High Temperature Storage Life</td><td>JESD22-A103</td><td>Ta= 150°C</td><td>1008 hrs</td><td>0/231</td></tr><tr><td>Preconditioning</td><td>J-STD-020 JESD-A113</td><td>MSL1@260°C, Pre TC, uHAST, HAST for surface mount pkgs only</td><td>-</td><td>0/693</td></tr><tr><td>Temperature Cycling</td><td>JESD22-A104</td><td>Ta= -65°C to +150°C</td><td>500 cyc</td><td>0/231</td></tr><tr><td>Highly Accelerated Stress Test</td><td>JESD22-A110</td><td>130°C, 85% RH, 18.8psig, bias</td><td>96 hrs</td><td>0/231</td></tr><tr><td>Unbiased Highly Accelerated Stress Test</td><td>JESD22-A118</td><td>130°C, 85% RH, 18.8psig, unbiased</td><td>96 hrs</td><td>0/231</td></tr><tr><td>Resistance to Solder Heat</td><td>JESD22- B106</td><td>Ta = 265°C, 10 sec</td><td>-</td><td>0/30</td></tr></tbody></table>					Test	Specification	Condition	Interval	Results	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	MSL1@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
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NOTE: AEC-1pager is attached. <i>To view attachments:</i> 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.																																												
Electrical Characteristics Summary: Electrical characteristics are not impacted.																																												



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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
NLV68SZ126MN2TWG	#NONE	NLV68SZ126MN2TWG