

Final Product/Process Change Notification

Document #:FPCN24289Z1 Issue Date:03 Nov 2021

Title of Change:	Update to FPCN24289Z to revise first ship date due to supply disruption - Original PCN title: Qualification of Henkel AB 8006NS non-conductive wafer back coating (WBC) die attach in SC70-5 package due to Hitachi EN4370K3 end of life.	
Proposed Changed Material First Ship Date:	25 Jan 2022 or earlier if approved by customer	
Current Material Last Order Date:	N/A Orders received after the Current Material Last Order Date expiration are to be considered orders for new changed material as described in this PCN. Orders for current (unchange material after this date will be per mutual agreement and current material invento availability.	
Current Material Last Delivery Date:	N/A The Current Material Last Delivery Date may be subject to change based on build and depletion of the current (unchanged) material inventory	
Product Category:	Active components – Integrated circuits	
Contact information:	Contact your local onsemi Sales Office or PCN.Support@onsemi.com	
PCN Samples Contact:	Contact your local onsemi Sales Office to place sample order or <pcn.samples@onsemi.com 45="" after="" and="" are="" be="" change="" custome="" date,="" days="" delivery="" label="" later="" no="" notification.="" of="" packing="" publication="" quantity="" request="" requests="" requirements.<="" sample="" samples="" special="" subject="" submitted="" td="" than="" this="" timing="" to="" will=""></pcn.samples@onsemi.com>	
Sample Availability Date:	22 Oct 2021	
PPAP Availability Date:	27 Oct 2021	
Additional Reliability Data:	Contact your local onsemi Sales Office or Vladislav.Hrachovec@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 - Assembly	Die attach material, Change of specified assembly process sequence (deletion and/or additional process step)	

Description and Purpose:

DUE TO SUPPLY DISRUPTION, THIS UPDATE NOTICE IS ISSUED TO INDICATE AN EARLIER FIRST SHIP DATE THAN ORIGINALLY COMMUNICATED.

There is no longer any unchanged product to ship or any Hitachi epoxy EN4370K3 material available for assembly. All bridge inventory has been depleted.

Original PCN description and purpose:

onsemi would like to inform its customers of the qualification of wafer back coating (WBC) die attach using Ablestik 8006NS, for products listed in this Final Product Change Notification (FPCN). This die attach method will replace the current non-conductive die attach using Hitachi EN4370K3 epoxy due to end of life by the manufacturer.

At the end of the FPCN approval cycle, these products will be using WBC die attach with Ablestik 8006NS as the die attach epoxy Hitachi EN4370K3 is no longer available.

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There are no changes to test or electrical specifications due to this process and material change. All products will continue to meet the specifications as listed in the product data sheet.

The assembly process change from epoxy to WBC die attach associated with this FPCN is shown in the flows below.

Assembly Flow (Epoxy)	Assembly Flow (WBC)
Wafer Mount	WBC print
Mylar Cure	Back stage cure
Wafer Saw	Wafer Mount
Wafer Wash	Mylar Cure
Die Bond	Wafer Saw
Epoxy Cure	Wafer Wash
Wire Bond	Die Bond
♦ Mold	WBC Cure
Plating	Wire Bond
Trim & Form	Mold
	Plating
	Trim & Form

The assembly BOM change associated with this FPCN is shown in the table below.

	Before Change Description	After Change Description
Die Attach	Die Attach using Hitachi EN4370K3 epoxy	Wafer Back Coating (WBC) with Ablestik 8006NS 10CC

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

Reason / Motivation for Change:	Supply disruption
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 Seremban, Malaysia		None	
Marking of Parts/ Traceability of Change:	Changed material will be controlled by product traceability. There will be no change to the product marking.		

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Reliability Data Summary:

QV DEVICE NAME: NCV2200SQ2T2G

RMS: S77368 PACKAGE: SC-70

Test	Specification	Condition	Interval	Results
HTOL	JESD22-A108	Ta=125°C, 100 % max rated Vcc	1008 hrs	0/231
HTSL	JESD22-A103	Ta= 150°C	1008 hrs	0/231
TC	JESD22-A104	Ta= -65°C to +150°C, mounted on board	500 cyc	0/231
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hrs	0/231
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/231
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C		0/693
RSH	JESD22- B106	Ta = 265C, 10 sec		0/90

NOTE: AEC-1pager is attached.

To view attachments:

- 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. Product will continue to adhere to all datasheet specifications.

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
NCV2200SQ2T2G	N/A	NCV2200SQ2T2G

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Appendix A: Changed Products

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Issue Date: Nov 03, 2021

Product	Customer Part Number	Qualification Vehicle	New Part Number	Replacement Supplier
NCV2200SQ2T2G		NCV2200SQ2T2G	N/A	