Final Product/Process Change Notification

Document #:FPCN25223Z
Issue Date:15 May 2023

Title of Change:	Transfer of assembly operation of SOIC8EP package (Case outline 751AC) from AMKOR (ATP1), Philippines to Hana Semiconductor (Ayutthaya) Co., Ltd., Thailand
Proposed Changed Material First Ship Date:	01 Dec 2023 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 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*.
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 Juraj.Kremmer@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:	15 Jun 2023
PPAP Availability Date:	15 Jun 2023
Additional Reliability Data:	Contact your local onsemi Sales Office or Chielo.Basa@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**
Packing/Shipping	Change of labelling
Equipment	Production from a new equipment/tool which uses the same basic technology (replacement equipment or extension of existing equipment pool) without change of process.
Process - Assembly	Move of all or part of assembly to a different location/site/subcontractor., Change of mold compound, Die attach material, Change of lead frame finishing material / area (internal), Change of wire bonding, Change of lead and heat slug plating material/plating thickness (external)

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Description and Purpose:

To notify customers of onsemi's plans to transfer assembly operations of SOIC8EP package (Case outline 751AC) from AMKOR, Philippines to Hana Semiconductor (Ayutthaya) Co., Ltd., Thailand.

	From	To
Assembly Site	AMKOR (ATP1), Philippines	Hana Semiconductor (Ayutthaya) Co., Ltd., Thailand
LeadFrame	NiPdAu preplated	Ag plating
Die Attach	ABLESTIK 8290	EN4900LC-18
Bond Wire	Au	CuPdAu
Mold Compound	G700LS	CV8214C
Lead finish	e4 (NiPdAu)	e3 (Sn)

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**
None	HANA Semiconductor, Thailand

Marking of Parts/ Traceability of Change:	Changed material can be identified by assembly plant code.

Reliability Data Summary:

QV DEVICE NAME: NCV8508CPD501R2G
RMS: O80605, S84318
PACKAGE: SOIC8 EP

Test	Specification	Condition	Interval	Results
HTOL	JESD22-A108	Ta= 125°C	2016 hrs	0/231
ELFR	AECQ100-008	Ta= 125°C	48 hrs	0/2400
HTSL	JESD22-A103	Ta= 150°C	2016 hrs	0/231
TC	JESD22-A104	Ta= -65°C to + 150°C	1000 cyc	0/231
HAST	JESD22-A110	110°C, 85% RH, 18.8psig, bias	528 hrs	0/231
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/231
PTC	JESD22-A105	Ta= -40°C to + 125°C	2000 cyc	0/45
PC	J-STD-020 JESD-A113	MSL 2 @ 260°C		0/693
SD	JSTD002	Ta = 245C, 10 sec		0/ 45
PD	JESD22-B100 and JESD22-B108	Per Case Outline		0/30

FYI. AEC1 Pager will be viewed with this document when you double click the paper clip attached.

Electrical Characteristics Summary:

Electrical characteristics are not impacted.

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
NCV8768CPD50ABR2G	NA	NCV8508CPD501R2G
NCV8508CPD501R2G	NA	NCV8508CPD501R2G