



## Final Product/Process Change Notification

Document #:FPCN25070ZH

Issue Date:14 Jun 2024

<b>Title of Change:</b>	Qualification of new lead frame with A194ESH base material for specific QFN Devices in onsemi Seremban, Malaysia.
<b>Proposed Changed Material First Ship Date:</b>	12 Sep 2024 or earlier if approved by customer
<b>Current Material Last Order Date:</b>	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>
<b>Current Material Last Delivery Date:</b>	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>
<b>Product Category:</b>	Active components – Integrated circuits
<b>Contact information:</b>	Contact your local onsemi Sales Office or <a href="mailto:Nanthiya.Krishnasamy@onsemi.com">Nanthiya.Krishnasamy@onsemi.com</a>
<b>PCN Samples Contact:</b>	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.
<b>Sample Availability Date:</b>	28 Jun 2024
<b>PPAP Availability Date:</b>	21 Jun 2024
<b>Additional Reliability Data:</b>	Contact your local onsemi Sales Office or <a href="mailto:MohdAzizi.Azman@onsemi.com">MohdAzizi.Azman@onsemi.com</a>
<b>Type of Notification:</b>	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 <a href="mailto:PCN.Support@onsemi.com">PCN.Support@onsemi.com</a> .
<b>Change Category</b>	
<b>Category</b>	<b>Type of Change</b>
Process - Assembly	Change of leadframe base material, Change of direct material supplier, Change of lead and heat slug plating material/plating thickness (external)
<b>Description and Purpose:</b>  onsemi is announcing the qualification of A194ESH Base Material and adding AAMI (Advanced Assembly Materials) supplier for selected QFN devices in onsemi Seremban, Malaysia.  This change will be implemented to mitigate supply disruption as the current supplier has ceased operation and can no longer support Last Time Buy. onsemi has a very limited supply of the current lead frame and customers are encouraged to review this change in order to minimize any potential impact to their supply chain.  Once the existing inventory of the current lead frame has been depleted, onsemi will immediately implement the new lead frame. Customers not wishing to receive material assembled with the new lead frame will need to work with their local sales contact to push out orders.  Upon implementation of this change, any of the qualified suppliers will be used to support demand.	

	From (DCI)	To (DCI or AAMI)	
Leadframe supplier	DCI	DCI	AAMI
Base Material	EFTEC64T	EFTEC64T	A194ESH
Plating Type	Ni, Pd, AuAg	Ni, Pd, AuAg	Ni, Pd, Au
Roughed	Non-Roughed	Non-Roughed	Roughed

**NOTE:** There is no product marking change and product traceability will be maintained by lot and date code.

<b>Reason / Motivation for Change:</b>	Source/Supply/Capacity Changes,Process/Materials Change
<b>Anticipated impact on fit, form, function, reliability, product safety or manufacturability:</b>	<p>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.</p> <p>No anticipated impacts.</p>

**Sites Affected:**

onsemi Sites	External Foundry/Subcon Sites
onsemi Seremban, Malaysia	None

<b>Marking of Parts/ Traceability of Change:</b>	Product traceability will be maintained by date code.
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**Reliability Data Summary:**

**QV DEVICE NAME:** CAV25512HU5E-GT3

**RRF:** S87243

**PACKAGE:** UDFN8 AU SNGL HPBF

Test	Specification	Condition	Interval	Result
HTSL	JESD22-A103	Ta= 150°C	1008 hrs	0/84
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C		0/22
TC	JESD22-A104	Ta= - 65°C to +150°C	1000 cyc	0/84
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/84
RSH	JESD22- B106	Ta = 268°C, 10 sec Required for through hole devices only		0/10
SD	JSTD002	Ta = 245°C, 5 sec		0/15

**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



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### 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
NCV8170BMX330TCG	#NONE	CAV25512HU5E-GT3
NCV8170BMX180TCG	#NONE	CAV25512HU5E-GT3
NCV8170AMX180TCG	#NONE	CAV25512HU5E-GT3