



# Final Product/Process Change Notification

Document #:FPCN24132Z

Issue Date:15 Oct 2021

<b>Title of Change:</b>	Recon Production Site Change to THELT from KINGPAK							
<b>Proposed Changed Material First Ship Date:</b>	30 Mar 2022 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:Mike.Webster@onsemi.com">Mike.Webster@onsemi.com</a>							
<b>PCN Samples Contact:</b>	Contact your local onsemi Sales Office to place sample order or < <a href="mailto:PCN.samples@onsemi.com">PCN.samples@onsemi.com</a> >. 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>	30 Sep 2021							
<b>PPAP Availability Date:</b>	29 Oct 2021							
<b>Additional Reliability Data:</b>	Contact your local onsemi Sales Office or <a href="mailto:Amy.Wu@onsemi.com">Amy.Wu@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	Move of all or part of assembly to a different location/site/subcontractor.							
<b>Description and Purpose:</b>								
<p>onsemi is relocating MT9V024-based family of products for die reconstruct assembly from Kingpak, Chung Lee, Taiwan to Tong Hsing Electronics Limited (THELT), Long Tan, Taiwan. Kingpak is a wholly owned subsidiary of Tong Hsing. This is being done in response to manufacturing floor optimization to support capacity improvement. The proposed site has passed the qualification requirements as per AEC-100 guidelines. The table below summarizes the change. There is no change in the shipping tape.</p> <table border="1"> <thead> <tr> <th></th> <th>Before Change Description</th> <th>After Change Description</th> </tr> </thead> <tbody> <tr> <td>Reconstruct Assembly Site</td> <td>Kingpak</td> <td>Tong Hsing Electronic Industries</td> </tr> </tbody> </table>				Before Change Description	After Change Description	Reconstruct Assembly Site	Kingpak	Tong Hsing Electronic Industries
	Before Change Description	After Change Description						
Reconstruct Assembly Site	Kingpak	Tong Hsing Electronic Industries						
There are no product material changes as a result of this change.								
There is no product marking change as a result of this change.								
<b>Reason / Motivation for Change:</b>	Source/Supply/Capacity Changes							
<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>							



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<b>Sites Affected:</b>	
<b>onsemi Sites</b>	<b>External Foundry/Subcon Sites</b>
None	Kingpak, Taiwan
	Tong Hsing Electronic Industries, Ltd. , Taiwan

<b>Marking of Parts/ Traceability of Change:</b>	Date Code
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**Reliability Data Summary:**

**QV DEVICE NAME : C13C**  
**PACKAGE : 9mm x 9 mm iBGA**

Test	Specification	Condition	Interval	Results
HTOL	JESD22-A108	Ta= <u>105</u> °C, 100 % max rated Vcc	1008 hrs	0/240
ELFR	AEC Q100-008	Ta= <u>125</u> °C	24 hrs	0/2400
PC	J-STD-020 JESD-A113	MSL 3 @ 260 °C		Pass
HTSL	JESD22-A103	Ta= <u>150</u> °C	1008 hrs	0/90
TC	JESD22-A104	Ta= <u>-55</u> °C to <u>+125</u> °C	1000 cyc	0/240
HAST	JESD22-A110	130°C, 85% RH, with bias	96 hrs	0/240
uHAST	JESD22-A118	130°C, 85% RH, unbiased	96 hrs	0/240
WBS	AEC Q100-001 AEC Q003	CPK >1.67		Pass
WBP	MIL-STD883 Method 2011 AEC Q003	CPK >1.67 or 0 Fails after TC (test #A4)		Pass
HBM	AEC Q100-002	0 Fails; 2KV HBM		Pass
CDM	AEC Q100-011	0 Fails: 750V for corner pins, 500V all other pins		Pass
LU	AEC Q100-004	0 Fails		Pass
ED	AEC Q100-009 AEC Q003	Elect. Distribution: (Test @ C/ R/ H)		Pass

**Electrical Characteristics Summary:**

Electrical characteristics are not impacted as there is no electrical testing as part of this assembly process and no changes to electrical test conditions at wafer probe.

**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
MT9V024D00XTRC13CC1-200	NA	MT9V024D00XTRC13CC1-200