



Initial Product/Process Change Notification

Document #: IPCN24622Z

Issue Date: 31 Mar 2022

Title of Change:	Addition of King Yuan Electronics Corp. (KYTEC) as Final Test and Packing location	
Proposed Changed Material First Ship Date:	03 Mar 2023 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 sigrid.cremers@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.	
Additional Reliability Data:	Contact your local onsemi Sales Office or Shiela.Crosby@onsemi.com	
Type of Notification:	This is an Initial Product/Process Change Notification (IPCN) sent to customers. An IPCN is an advance notification about an upcoming change and contains general information regarding the change details and devices affected. It also contains the preliminary reliability qualification plan. The completed qualification and characterization data will be included in the Final Product/Process Change Notification (FPCN). This IPCN notification will be followed by a Final Product/Process Change Notification (FPCN) at least 6 months prior to implementation of the change. In case of questions, contact < PCN.Support@onsemi.com >.	
Change Category		
Category	Type of Change	
Test Flow	Move of all or part of electrical wafer test and/or final test to a different location/site/subcontractor	
Description and Purpose:		
Addition of KYEC, Taiwan as Final Test and Packing location to improve tester capacity balancing and loading.		
There are no material nor product marking changes as a result of this PCN.		
	From	To
Additional Final Test Site	onsemi, Carmona	onsemi, Carmona + KYEC, Taiwan
There is no product marking change as a result of this change.		



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Reason / Motivation for Change:	Capacity improvement	
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	KYECC, Taiwan	
Marking of Parts/ Traceability of Change:	No marking change	
Reliability Data Summary:		
Not applicable. No change in material.		
Electrical Characteristics Summary:		
<p>QC ambient correlation data between the reference test site (onsemi, Carmona) and the target test site (KYECC) is provided in a separate qualification report.</p> <p>The correlation procedure will be used, like done as in previous PCN's covering the release of additional test site:</p> <p>Two correlation units will be serialized and datalogged in 30 loops using the reference test site (onsemi, Carmona) where the device is already qualified. The test will be done at room temperature, using the QC program.</p> <ul style="list-style-type: none"> ○ Then, the same correlation units will be used to gather data on target test site (KYECC). ○ The same datalogging procedure used for test site (onsemi, Carmona) will be followed for test site (KYECC). <p>Full parametric correlation will be performed and for every test the shift will be evaluated as follows:</p> $D_{\text{mean}} = \text{abs}(\text{mean}(\text{ref}) - \text{mean}(\text{qual}))$ $D_{\text{sigma}} = 0 \quad \text{if } \sigma(\text{qual}) < \sigma(\text{ref})$ $D_{\text{sigma}} = \sigma(\text{qual}) - \sigma(\text{ref}) \quad \text{if } \sigma(\text{qual}) > \sigma(\text{ref})$ $\text{shift} = D_{\text{mean}} + 4 * D_{\text{sigma}}$ <p>If shift < max(5% specwidth, 6*sigma(ref)) then correlation is OK for this test, else correlation is NOK for this test</p> <p>Any parameter that is NOK is independently analyzed and explained.</p>		
List of Affected Parts:		
<p>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.</p>		
Current Part Number	New Part Number	Qualification Vehicle
NCV78723MW2R2G	N/A	NCV78723MW2R2G