



Title of Change:	Copper bumping/Redistribution Layer production site change from subcontractor foundry's Li-Hsin (LH) site to Kuang Fu (KF) site. Applicable to the family of products NCP3135, NCP3133, NCP3134, NCP3136, and NCP1594							
Proposed first ship date:	21 July 2018 Or earlier upon customer approval							
Contact information:	Contact your local ON Semiconductor Sales Office or <Clarence.Wong@onsemi.com>							
Samples:	Samples available approximately March 2018. Contact your local ON Semiconductor Sales Office.							
Type of notification:	<p>This is an Initial Product/Process Change Notification (IPCN) sent to customers. IPCNs are issued at least 30 days prior to the issuance of the Final Change Notice (FPCN). 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.</p> <p>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 90 days prior to implementation of the change. In case of questions, contact <PCN.Support@onsemi.com>.</p>							
Change Part Identification:	Parts can be identified through datecode marking following ON Semiconductor standards. Contact your local ON Semiconductor Sales Office for the specific datecode information.							
Change category:	<input type="checkbox"/> Wafer Fab Change <input type="checkbox"/> Assembly Change <input type="checkbox"/> Test Change <input checked="" type="checkbox"/> Other <u>Copper Bumping/RDL (redistribution layer)</u>							
Change Sub-Category(s):	<input checked="" type="checkbox"/> Manufacturing Site Change/Addition <input type="checkbox"/> Material Change <input type="checkbox"/> Datasheet/Product Doc change <input type="checkbox"/> Manufacturing Process Change <input type="checkbox"/> Product specific change <input type="checkbox"/> Shipping/Packaging/Marking <input type="checkbox"/> Other: _____							
Sites Affected:	ON Semiconductor Sites: None	External Foundry/Subcon Sites: Foundry, subcontractor, Chipbond Corp.						
Description and Purpose:								
<p>Change in manufacturing site at foundry subcontractor, from their LH site to KF site, for the copper bumping (redistribution layer). There is no change to the datasheet specifications, or any other aspect of the product.</p> <p>Reason: Capacity expansion by foundry and to avoid single machine constraint.</p>								
<table border="1"> <thead> <tr> <th style="background-color: #92d050;">Item to be changed:</th> <th style="background-color: #92d050;">Before Change Description</th> <th style="background-color: #92d050;">After Change Description</th> </tr> </thead> <tbody> <tr> <td>Manufacturing Site for Copper RDL layer</td> <td>Li-Hsin site (LH)</td> <td>Kuang Fu site (KF)</td> </tr> </tbody> </table>			Item to be changed:	Before Change Description	After Change Description	Manufacturing Site for Copper RDL layer	Li-Hsin site (LH)	Kuang Fu site (KF)
Item to be changed:	Before Change Description	After Change Description						
Manufacturing Site for Copper RDL layer	Li-Hsin site (LH)	Kuang Fu site (KF)						



Qualification Plan:

Test	Specification	Condition	Interval	Sample Size	# lots
HTOL	JESD22-A108	Ta=125°C, 100 % max rated Vcc	1008 hrs	77	1
TC	JESD22-A104	Ta= -65°C to +150°C	500 cyc	77	3
HAST	JESD22-A110	130°C, 85% RH, bias	96 hrs	77	3
PC	J-STD-020 JESD-A113	MSL 1 @ 85°C/85%RH, 168 Hr 260C reflow All lots prior to HAST, TC	Prior to HAST, TC	All	All
SAT	J-STD-035 J-STD-020	Scanning Acoustic Tomography	Pre and Post PC	10	3
BPS	M883 Method 2011	Wire Bond Pull Strength, Condition C	Data from Assembly	5	3
BS	AEC-Q100-001	Bond Shear Test	Data from Assembly	5	3
ED	ON Data Sheet	Electrical Distribution	Cpk > 1.67	30	1

Estimated date for qualification completion: 30 March 2018

List of Affected Standard Parts:

Part Number	Qualification Vehicle
NCP3133MNTXG	NCP3135MNTXG per qualification plan
NCP3133AMNTXG	
NCP3134MNTBG	
NCP3134MNTXG	
NCP3135MNTXG	
NCP3136MNTXG	
NCP1594AMNTXG	