



Title of Change:	Copper bumping/Redistribution Layer production site change from subcontractor foundry (Chipbond Corp.) 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:	25 August 2018 Or earlier upon customer approval							
Contact information:	Contact your local ON Semiconductor Sales Office or <Clarence.Wong@onsemi.com>							
Samples:	Contact your local ON Semiconductor Sales Office or <PCN.Samples@onsemi.com>							
Additional Reliability Data:	Contact your local ON Semiconductor Sales Office or <Paul.Syndergaard@onsemi.com>							
Type of notification:	This is a Final Product/Process Change Notification (FPCN) sent to customers. FPCNs are issued 90 days prior to implementation of the change. ON Semiconductor will consider this change accepted, unless an inquiry is made in writing within 30 days of delivery of this notice. To do so, contact <PCN.Support@onsemi.com>.							
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:								
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.								
Reason: Capacity expansion by foundry and to avoid single machine constraint.								
<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) Chipbond Corp.</td> <td>Kuang Fu site (KF) Chipbond Corp.</td> </tr> </tbody> </table>			Item to be changed:	Before Change Description	After Change Description	Manufacturing Site for Copper RDL layer	Li-Hsin site (LH) Chipbond Corp.	Kuang Fu site (KF) Chipbond Corp.
Item to be changed:	Before Change Description	After Change Description						
Manufacturing Site for Copper RDL layer	Li-Hsin site (LH) Chipbond Corp.	Kuang Fu site (KF) Chipbond Corp.						



Reliability Data Summary:

Test	Specification	Condition	Interval	Results Lot A	Results Lot B	Results Lot C
HTOL	JESD22-A108	Ta=125°C, 100 % max rated Vcc	504 hrs 1008 hrs	0/80 0/80		
TC	JESD22-A104	Ta= -65°C to +150°C	500 cyc	0/89	0/89	0/89
			SAT at 500cyc	0/22	0/22	0/22
			1000 cyc	0/80	0/80	0/80
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hrs	0/77	0/70	0/61
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/79	0/80	0/80
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C		0/254	0/254	0/254
BPS	M883 Method 2011	Wire Bond Pull Strength, Condition C	CDPA	0/5	0/5	0/5
BS	AEC-Q100-001	Bond Shear Test	Data from Assembly	0/11	0/11	0/11
SAT	J-STD-035 J-STD-020	Scanning Acoustic Tomography	Pre and Post PC	0/22	0/22	0/22
ED	ON Data Sheet	Electrical Distribution, 30 units	Cpk > 1.67	Pass		

Electrical Characteristic Summary:

Electrical characteristics are not impacted.

List of Affected Standard Parts:

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

Appendix A: Changed Products

Product	Customer Part Number	Qualification Vehicle
NCP1594AMNTXG		NCP3135MNTXG
NCP3133AMNTXG		NCP3135MNTXG
NCP3134MNTXG		NCP3135MNTXG
NCP3135MNTXG		NCP3135MNTXG
NCP3136MNTXG		NCP3135MNTXG