



Title of Change:	Improve the quality of SSOP36 package by qualifying a new lead frame without silver (Ag) into plating moving from NiPdAu-Ag to NiPdAu for LED Drivers devices (Front Lighting) assembled in OSPI Carmona (Philippines) and Amkor (ATP1) Philippines.										
Proposed Changed Material First Ship Date:	30 July 2020 <i>or earlier upon customer approval.</i>										
Current Material Last Order Date:	NA										
Current Material Last Delivery Date:	19 April 2020 The Current Material Last Delivery Date may be subject to change based on build and depletion of the current (unchanged) material inventory.										
Product Category:	Active components – Integrated circuits										
Contact information:	Contact your local ON Semiconductor Sales Office or < Bernard.blanchet@onsemi.com >										
Samples:	Contact your local ON Semiconductor Sales Office to place sample order or < PCN.samples@onsemi.com > Sample requests are to be submitted no later than 45 days after publication of this change notification.										
Sample Availability Date:	1 June 2019										
PPAP Availability Date:	1 June 2019										
Additional Reliability Data:	Contact your local ON Semiconductor Sales Office or < Daniel.vanderstraeten@onsemi.com >.										
Type of Notification:	This is a Final Product/Process Change Notification (FPCN) sent to customers. FPCNs are issued 12 months prior to implementation of the change or earlier upon customer approval. ON Semiconductor 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 PCN.Support@onsemi.com .										
Change Category:	Type of Change										
Process – Assembly	Change of lead frame finishing material / area (internal)										
Process – Assembly	Change of direct material supplier										
Description and Purpose:											
<table border="1"> <thead> <tr> <th></th> <th style="background-color: #92d050;">Before Change Description</th> <th style="background-color: #92d050;">After Change Description</th> </tr> </thead> <tbody> <tr> <td>LeadFrame plating</td> <td>NiPdAu-Ag</td> <td>NiPdAu</td> </tr> <tr> <td>Lead Frame Supplier</td> <td>HDS</td> <td>ASM</td> </tr> </tbody> </table>				Before Change Description	After Change Description	LeadFrame plating	NiPdAu-Ag	NiPdAu	Lead Frame Supplier	HDS	ASM
	Before Change Description	After Change Description									
LeadFrame plating	NiPdAu-Ag	NiPdAu									
Lead Frame Supplier	HDS	ASM									
There is no product marking change as a result of this change.											
Reason / Motivation for Change:	<ul style="list-style-type: none"> - Change benefits for customer: Eliminate the risk of leads discoloration (no wetting) under a certain environment. - Risk for late release for customer: yield loss in their PCB assembly lines - Quality improvement: Yes 										
Anticipated impact on fit, form, function, reliability, product safety or manufacturability	<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 ON Semiconductor in relation to the PCN, associated risks are verified and excluded.</p> <p>No anticipated impacts.</p>										
Sites Affected:	ON Semiconductor Sites: ON Carmona, Philippines	External Foundry/Subcon Sites: Amkor Phil 1									



Marking of Parts/ Traceability of Change:	New part number and date code. .
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Reliability Data Summary:

ON CARMONA PHILIPPINES (OSPI)				
QV: 0L763-001 / 0L763-011 RMS: O54851 Package: SSOP36-EP				
Test	Specification	Condition	Interval	Results
PC	JESD22 A113 J-STD-020	Preconditioning: (Test@Rm) SMD only; Moist. Precond. MSL=3 @260°C		0/480
UHASt	JESD22 A118	Unbiased Highly Accelerated Stress Test: (Test @R) 110°C/85% RH, ~ 18.8 psig, no bias for 264hrs.		0/480
PC-TC	JESD22 A104	Temp Cycle: (Test @H) -55°C to+165°C.	500 cycles	0/480
HTSL	JESD22 A103	High Temp Storage Life (Test @R/H) TA= 150°C	1008 hrs	0/480
HTOL	JESD22 A108	High Temp Op Life: (Test @ R/H/C) TA=125°C	1008 hrs.	0/160
WBP	Mil-Std-883 Meth 2011	Wire Bond Pull: Cpk>1.67		>1.67
SD	J-STD-002or JESD22 B102	Solderability TA=245°C		0/30
PD	JESD22 B100	POD Cpk>1.67		0/40

Amkor PHILIPPINES (ATP1)				
QV: 0L763-013 / 0L763-001 RMS: O39592 / O33601 Package: SSOP36-EP				
Test	Specification	Condition	Interval	Results
PC	JESD22 A113 J-STD-020	Preconditioning: (Test@Rm) SMD only; Moist. Precond. MSL=3 @260°C		0/508
UHASt	JESD22 A118	Unbiased Highly Accelerated Stress Test: (Test @R) 110°C/85% RH, ~ 18.8 psig, no bias for 264hrs.		0/160
HAST	JESD A110B	Biased-HAST, 110°C/85%RH	264 hrs	0/160
PC-TC	JESD22 A104	Temp Cycle: (Test @H) -65°C to+150°C.	500 cycles	0/160
PTC	JESD22-A 105	-40°C/125°C	1000cycles	0/24
HTSL	JESD22 A103	High Temp Storage Life (Test @R/H) TA= 150°C	504 hrs 1008 hrs	0/80
HTOL	JESD22 A108	High Temp Op Life: (Test @ R/H/C) TA=125°C	1000 hrs.	0/126
WBP	Mil-Std-883 Meth 2011	Wire Bond Pull: Cpk>1.67		0/10
SD	J-STD-002or JESD22 B122	Solderability TA=245°C		0/30
PD	JESD22 B100	POD Cpk>1.67		0/30

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/s



Electrical Characteristic 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
NCV78763DQ0AR2G	NCV78763DQ0CR2G	OSPI: 0L763-001/0L763-011 ATP1: 0L763-001/0L763-013
NCV78763DQ6AR2G	NCV78763DQ6CR2G	OSPI: 0L763-001/0L763-011 ATP1: 0L763-001/0L763-013
NCV78663DQ0R2G	NCV78663DQ0CR2G	OSPI: 0L763-001/0L763-011

Appendix A: Changed Products

Product	Customer Part Number	New Part Number	Qualification Vehicle
NCV78663DQ0R2G		NCV78663DQ0CR2G	0L763-001 0L763-011
NCV78763DQ0AR2G		NCV78763DQ0CR2G	0L763-001 0L763-011 0L763-013
NCV78763DQ6AR2G		NCV78763DQ6CR2G	0L763-001 0L763-011 0L763-013