



Initial Product/Process Change Notification

Document #: IPCN25102Z

Issue Date: 16 Aug 2023

Title of Change:	Copper wire conversion from 2 mil Au wire to 2 mil PCC wire (CLR-1A) for HD devices	
Proposed Changed Material First Ship Date:	16 May 2024 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 Nissy.Curioso@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 Youngchul.Lee@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	
Process - Assembly	Change of wire bonding	
Description and Purpose:		
onsemi would like to inform customers of the planned change from 2 mils Au to 2 mils PCC wire on select products assembled in onsemi, Carmona Philippines. There is no planned change to the orderable part numbers, or product marking, and there is no anticipated change to product parametric performance or datasheet parameters."		
	From	To
Bond Wire	2 mils Au Wire	2 mils PCC Wire
Upon expiry of the final Product Change Notification, the products listed will convert their BOMs to the new wire type. There is no change in the wire size. Also, there is no product marking change as a result of this change.		
Reason / Motivation for Change:	Cost Improvement	
Anticipated impact on fit, form, function, reliability, product safety or manufacturability:	The device will be qualified and validated based on the same Product Specification. No anticipated impacts.	



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Sites Affected:	
onsemi Sites	External Foundry/Subcon Sites
onsemi Carmona, Philippines	None
Marking of Parts/ Traceability of Change:	Affected product identified by date code

Reliability Data Summary:

QV DEVICE NAME: NCV84045DR2G

RMS: O89249

PACKAGE: SOIC 8

Test	Specification	Condition	Interval
High Temperature Storage Life	JESD22-A103	Ta= 175°C	1008 hrs
Preconditioning	J-STD-020 JESD-A113	MSL 3 @ 260°C	
Temperature Cycling	JESD22-A104	Ta= -65°C to +150°C	1000 cyc
Highly Accelerated Stress Test	JESD22-A110	110°C, 85% RH, 18.8psig, bias	528 hrs
Unbiased Highly Accelerated Stress Test	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs

QV DEVICE NAME: NCV8460ADR2G

RMS: O89173

PACKAGE: SOIC 8

Test	Specification	Condition	Interval
High Temperature Storage Life	JESD22-A103	Ta= 150°C	2016 hrs
Preconditioning	J-STD-020 JESD-A113	MSL 3 @ 260°C	
Temperature Cycling	JESD22-A104	Ta= -65°C to +150°C	1000 cyc
Highly Accelerated Stress Test	JESD22-A110	130°C, 85% RH, 18.8psig, bias	192 hrs
Unbiased Highly Accelerated Stress Test	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs

QV DEVICE NAME: NCV8412ADDR2G

RMS: S89254

PACKAGE: SOIC 8

Test	Specification	Condition	Interval
High Temperature Storage Life	JESD22-A103	Ta= 150C	2016 hrs
Preconditioning	J-STD-020 JESD-A113	MSL 1 @ 260 °C	
Intermittent Operating Life	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 2 min	30 000 cyc
Temperature Cycling	JESD22-A104	Ta= -55°C to +150°C	1000 cyc
Highly Accelerated Stress Test	JESD22-A110	130°C, 85% RH, 18.8psig, bias	192 hrs

Estimated date of qualification completion: August 31, 2023



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Electrical Characteristics 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
NCV8412ADDR2G	N/A	NCV8412ADDR2G
NCV8402ADDR2G	N/A	NCV8412ADDR2G
NCV8461DR2G	N/A	NCV8460ADR2G
NCV8460ADR2G	N/A	NCV8460ADR2G
NCV8445DR2G	N/A	NCV8460ADR2G
NCV84160DR2G	N/A	NCV84045DR2G
NCV84140DR2G	N/A	NCV84045DR2G
NCV84120DR2G	N/A	NCV84045DR2G
NCV84090DR2G	N/A	NCV84045DR2G
NCV84045DR2G	N/A	NCV84045DR2G