



Initial Product/Process Change Notification

Document #: IPCN25510Z

Issue Date: 16 Aug 2023

Title of Change:	Transfer of Assembly and Test operation of DPAK5LD package (Case outline 175AA) from onsemi Seremban, Malaysia to Good-Ark Electronics Co.ltd., Suzhou, China	
Proposed Changed Material First Ship Date:	01 Oct 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 ZuraidaAzlinda.Zulkapli2@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 AbdulRasyid.Ruslan@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	
Equipment	Production from a new equipment/tool which uses the same basic technology (replacement equipment or extension of existing equipment pool) without change of process.	
Process - Assembly	Move of all or part of assembly to a different location/site/subcontractor., Change of mold compound, Die attach material, Change of product marking	
Description and Purpose:		
This Initial Notification announces to customers that onsemi plans to transfer assembly and test operations of DPAK5LD package (Case outline 175AA) products from onsemi Seremban, Malaysia to Good-Ark Electronics Co.ltd., Suzhou, China.		
	From	To
Assembly / Test Site	onsemi, Seremban, Malaysia	Good-Ark Electronics Co.ltd., Suzhou, China
Die Attach	Pb95Sn5	Pb92.5Sn5Ag2.5
Mold Compound	GE8000CH4ES	G700HF

Reason / Motivation for Change:	Source/Supply/Capacity Changes Process/Materials Change		
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.		
Sites Affected:			
onsemi Sites		External Foundry/Subcon Sites	
onsemi Seremban, Malaysia		Good-Ark, China	
Marking of Parts/ Traceability of Change:	Changed material can be identified by assembly plant code.		
Reliability Data Summary:			
QV DEVICE NAME: NCV8675DT50RKG			
RMS: S87321 / S90939			
PACKAGE: DPAK 5LD			
Test	Specification	Condition	Interval
High Temperature Operating Life	JESD22-A108	Ta=125°C, 100 % max rated Vcc	1008 hrs
Early Life Failure Rate	JESD22-A108	Ta=125°C, 100 % max rated Vcc	48 hrs
High Temperature Storage Life	JESD22-A103	Ta= 150°C	2016 hrs
Preconditioning	J-STD-020 JESD-A113	MSL 1 @ 260 °C	
Temperature Cycling	JESD22-A104	Ta= -55°C to +150°C, mounted form air to air	1000 cyc
Power Temperature Cycling	JESD22 A105	Tj= -40°C to +125°C, bias	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
Resistance to Solder Heat	JESD22- B106	Ta = 265°C, 10 sec	
Solderability	JSTD002	Ta = 245°C, 5 sec	
Physical Dimensions	JESD22-B120		
QV DEVICE NAME: NCV4276CDTADJRKG			
RMS: S87323			
PACKAGE: DPAK 5LD			
Test	Specification	Condition	Interval
High Temperature Operating Life	JESD22-A108	Ta=125°C, 100 % max rated Vcc	1008 hrs
Early Life Failure Rate	JESD22-A108	Ta=125°C, 100 % max rated Vcc	48 hrs
High Temperature Storage Life	JESD22-A103	Ta= 150°C	2016 hrs
Preconditioning	J-STD-020 JESD-A113	MSL 1 @ 260 °C	
Temperature Cycling	JESD22-A104	Ta= -55°C to +150°C, mounted form air to air	1000 cyc
Power Temperature Cycling	JESD22 A105	Tj= -40°C to +125°C, bias	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
Resistance to Solder Heat	JESD22- B106	Ta = 265°C, 10 sec	
Solderability	JSTD002	Ta = 245°C, 5 sec	
Physical Dimensions	JESD22-B120		
Estimated date for qualification completion: 31 August 2024			
Electrical Characteristics Summary:			
Electrical characteristics are not impacted.			



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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
NCV8675DT50RKG	NA	NCV8675DT50RKG
NCV4275CDT50RKG	NA	NCV4276CDTADJRKG
NCV4275CDT33RKG	NA	NCV4276CDTADJRKG
NCV4276CDT33RKG	NA	NCV4276CDTADJRKG
NCV4276CDT50RKG	NA	NCV4276CDTADJRKG
NCV4276CDTADJRKG	NA	NCV4276CDTADJRKG
NCV4276CDTADJT5G	NA	NCV4276CDTADJRKG
NCV4275ADT50RKG	NA	NCV8675DT50RKG
NCV4275ADT50RKG-IR01	NA	NCV8675DT50RKG
NCV4276BDT33RKG	NA	NCV8675DT50RKG
NCV4276BDT50RKG	NA	NCV8675DT50RKG
NCV4276BDTADJRKG	NA	NCV8675DT50RKG
NCV8184DTRKG	NA	NCV8675DT50RKG

Appendix A: Changed Products

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DIKG: DIGI-KEY

Product	Customer Part Number	Qualification Vehicle	New Part Number	Replacement Supplier
NCV4275CDT50RKG		NCV4276CDTADJRKG	NA	
NCV4275CDT33RKG		NCV4276CDTADJRKG	NA	
NCV4276CDT33RKG		NCV4276CDTADJRKG	NA	
NCV4276CDT50RKG		NCV4276CDTADJRKG	NA	
NCV4276CDTADJRKG		NCV4276CDTADJRKG	NA	
NCV4276CDTADJT5G		NCV4276CDTADJRKG	NA	
NCV4275ADT50RKG-IR01		NCV8675DT50RKG	NA	
NCV4276BDT33RKG		NCV8675DT50RKG	NA	
NCV4276BDT50RKG		NCV8675DT50RKG	NA	
NCV4276BDTADJRKG		NCV8675DT50RKG	NA	
NCV8184DTRKG		NCV8675DT50RKG	NA	
NCV8675DT50RKG		NCV8675DT50RKG	NA	
NCV4275ADT50RKG		NCV8675DT50RKG	NA	