

Initial Product/Process Change Notification Document #:IPCN24896Z

Issue Date:29 Sep 2022

Title of Change:	Transfer of Assembly and Test operation of DPAK package (Case outline 369C) from onsemi Seremban, Malaysia to JCET Semiconductor (Suqian) Co.Ltd., China
Proposed Changed Material First Ship Date:	01 Oct 2023 or earlier if approved by customer
Current Material Last Order Date:	30 Apr 2023 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.
Current Material Last Delivery Date:	30 Sep 2023 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 onsemi Sales Office or Juraj.Kremmer@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 MohdAzizi.Azman@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 lead frame finishing material / area (internal), Change of product marking

Description and Purpose:

This Initial Notification announces to customers of onsemi's plans to Transfer Assembly and Test operations of the DPAK package (Case Outline 369C) products from onsemi Seremban, Malaysia to JCET Semiconductor (Suqian) Co.Ltd., China.

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	From	То
Assembly / Test Site	onsemi, Seremban, Malaysia	JCET Semiconductor Co.Ltd., Suqian, China
LeadFrame	No plating	Ag plating
Die Attach	Pb95Sn5	Pb95.5Sn2Ag2.5
Mold Compound	G700HF GE 8000CH4ES	CEL-9240HF(Green)

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	JCET, China

Marking of Parts/	Traceability of
Change:	

Changed material can be identified by assembly plant code.

Reliability Data Summary:

QV DEVICE NAME: NCV4274ADT50RKG-IR01

RMS: 84637 **PACKAGE: DPAK**

Test	Specification	Condition	Interval
HTOL	JESD22-A108	Ta=125°C, 100 % max rated Vcc	1008 hrs
ELFR	JESD22-A108	Ta=125°C, 100 % max rated Vcc	48 hrs
HTSL	JESD22-A103	Ta= 150°C	2016 hrs
LTSL	JESD22-A119	Ta= -40°C	168 hrs
PC	J-STD-020 JESD-A113	MSL 1 @ 260°C	
TC	JESD22-A104	Ta= -65°C to +150°C, mount on board	500 cyc
PTC	JESD22-A105	Ta= -40°C to +125°C, mount on board	1000 cyc
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	192 hrs
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs
RSH	JESD22- B106	Ta = 265°C, 10 sec Required for through hole devices only	
SD	JSTD002	Ta = 245°C, 5 sec	

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QV DEVICE NAME: NCV4274CDT50RKG

RMS: 84639 **PACKAGE: DPAK**

Test	Specification	Condition	Interval
HTOL	JESD22-A108	Ta=125°C, 100 % max rated Vcc	1008 hrs
ELFR	JESD22-A108	Ta=125°C, 100 % max rated Vcc	48 hrs
HTSL	JESD22-A103	Ta= 150°C	2016 hrs
LTSL	JESD22-A119	Ta= -40°C	168 hrs
PC	J-STD-020 JESD-A113	MSL 1 @ 260°C	
TC	JESD22-A104	Ta= -65°C to +150°C, mount on board	500 cyc
PTC	JESD22-A105	Ta= -40°C to +125°C, mount on board	1000 cyc
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	192 hrs
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs
RSH	JESD22- B106	Ta = 265°C, 10 sec Required for through hole devices only	
SD	JSTD002	Ta = 245°C, 5 sec	

QV DEVICE NAME: NCV8774CDT50RKG

RMS: 84638 **PACKAGE: DPAK**

Test	Specification	Condition	Interval
HTOL	JESD22-A108	Ta=125°C, 100 % max rated Vcc	1008 hrs
ELFR	JESD22-A108	Ta=125°C, 100 % max rated Vcc	48 hrs
HTSL	JESD22-A103	Ta= 150°C	2016 hrs
LTSL	JESD22-A119	Ta= -40°C	168 hrs
PC	J-STD-020 JESD-A113	MSL 1 @ 260°C	
TC	JESD22-A104	Ta= -65°C to +150°C, mount on board	500 cyc
PTC	JESD22-A105	Ta= -40°C to +125°C, mount on board	1000 cyc
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	192 hrs
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs
RSH	JESD22- B106	Ta = 265°C, 10 sec Required for through hole devices only	
SD	JSTD002	Ta = 245°C, 5 sec	

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QV DEVICE NAME: NCV1117DT50RKG

RMS: 84204 PACKAGE: DPAK

Test	Specification	Condition	Interval
HTOL	JESD22-A108	Ta=125°C, 100 % max rated Vcc	1008 hrs
ELFR	JESD22-A108	Ta=125°C, 100 % max rated Vcc	48 hrs
HTSL	JESD22-A103	Ta= 150°C	2016 hrs
LTSL	JESD22-A119	Ta= -40°C	168 hrs
PC	J-STD-020 JESD-A113	MSL 1 @ 260°C	
TC	JESD22-A104	Ta= -65°C to +150°C, mount on board	500 cyc
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	192 hrs
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs
RSH	JESD22- B106	Ta = 265°C, 10 sec Required for through hole devices only	
SD	JSTD002	Ta = 245°C, 5 sec	

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 <u>PCN Customized Portal</u>.

Current Part Number	New Part Number	Qualification Vehicle
NCV4274ADT50RKG	NA	NCV4274ADT50RKG-IR01
NCV4274ADT50RKG-IR01	NA	NCV4274ADT50RKG-IR01
NCV8664DT50RKG	NA	NCV4274ADT50RKG-IR01
NCV4274CDT33RKG	NA	NCV4274CDT50RKG
NCV4274CDT50RKG	NA	NCV4274CDT50RKG
NCV8664CDT33RKG	NA	NCV4274CDT50RKG
NCV8664CDT50RKG	NA	NCV4274CDT50RKG
NCV8774CDT33RKG	NA	NCV8774CDT50RKG
NCV8774CDT50RKG	NA	NCV8774CDT50RKG
NCV1117DT12RKG	NA	NCV1117DT50RKG
SA317MDTRKG	NA	NCV1117DT50RKG
SA317MBDTRKG	NA	NCV1117DT50RKG
NCV7808BDTRKG	NA	NCV1117DT50RKG

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NCV7805BDTRKG-IR01	NA	NCV1117DT50RKG
NCV7805BDTRKG	NA	NCV1117DT50RKG
NCV317MBDTRKG	NA	NCV1117DT50RKG
NCV317MABDTRKG	NA	NCV1117DT50RKG
NCV78M12BDTRKG	NA	NCV1117DT50RKG
NCV78M08BDTRKG	NA	NCV1117DT50RKG
NCV78M05BDTRKG	NA	NCV1117DT50RKG
NCV78M05ABDTRKG	NA	NCV1117DT50RKG
NCV33269DTRKG	NA	NCV1117DT50RKG
NCV33269DTRK5.0G	NA	NCV1117DT50RKG
NCV33269DTRK3.3G	NA	NCV1117DT50RKG
NCV5501DT50RKG	NA	NCV1117DT50RKG
NCV5501DT33RKG	NA	NCV1117DT50RKG
NCV5501DT15RKG	NA	NCV1117DT50RKG
NCV2931ADT5.0RKG	NA	NCV1117DT50RKG
NCV1117DTARKG	NA	NCV1117DT50RKG
NCV1117DT50RKG	NA	NCV1117DT50RKG
NCV1117DT33T5G	NA	NCV1117DT50RKG
NCV1117DT18T5G	NA	NCV1117DT50RKG
NCV1117DT18RKG	NA	NCV1117DT50RKG
NCV1117DT15RKG	NA	NCV1117DT50RKG

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Appendix A: Changed Products

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DIKG: DIGI-KEY

Product	Customer Part Number	Qualification Vehicle	New Part Number	Replacement Supplier
NCV4274ADT50RKG		NCV4274ADT50RKG-IR01	NA	
NCV4274CDT33RKG		NCV4274CDT50RKG	NA	
NCV4274CDT50RKG		NCV4274CDT50RKG	NA	
NCV8774CDT33RKG		NCV8774CDT50RKG	NA	
NCV8774CDT50RKG		NCV8774CDT50RKG	NA	
NCV1117DT12RKG		NCV1117DT50RKG	NA	
NCV7805BDTRKG		NCV1117DT50RKG	NA	
NCV317MBDTRKG		NCV1117DT50RKG	NA	
NCV317MABDTRKG		NCV1117DT50RKG	NA	
NCV78M12BDTRKG		NCV1117DT50RKG	NA	
NCV78M08BDTRKG		NCV1117DT50RKG	NA	
NCV78M05BDTRKG		NCV1117DT50RKG	NA	
NCV78M05ABDTRKG		NCV1117DT50RKG	NA	
NCV33269DTRK5.0G		NCV1117DT50RKG	NA	
NCV33269DTRK3.3G		NCV1117DT50RKG	NA	
NCV5501DT50RKG		NCV1117DT50RKG	NA	
NCV5501DT33RKG		NCV1117DT50RKG	NA	
NCV2931ADT5.0RKG		NCV1117DT50RKG	NA	
NCV1117DTARKG		NCV1117DT50RKG	NA	
NCV1117DT50RKG		NCV1117DT50RKG	NA	
NCV1117DT33T5G		NCV1117DT50RKG	NA	
NCV1117DT18T5G		NCV1117DT50RKG	NA	
NCV1117DT18RKG		NCV1117DT50RKG	NA	
NCV1117DT15RKG		NCV1117DT50RKG	NA	
NCV8664DT50RKG		NCV4274ADT50RKG-IR01	NA	