



Initial Product/Process Change Notification

Document #: IPCN25253X

Issue Date: 17 Feb 2023

Title of Change:	DPAK case outline 369AA/D - Assembly and Test Sites transfer to Good-Ark, China.
Proposed First Ship date:	19 Jan 2024 or earlier if approved by customer
Contact Information:	Contact your local onsemi Sales Office or MohdFariz.Ismail@onsemi.com
PCN Samples Contact:	Contact your local onsemi Sales Office. Sample requests are to be submitted no later than 30 days from the date of first notification, Initial PCN or Final PCN, for this change. Samples delivery timing will be subject to request date, sample quantity and special customer packing/label requirements.
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 90 days prior to implementation of the change. In case of questions, contact < PCN.Support@onsemi.com >
Marking of Parts/ Traceability of Change:	Changed material can be identified by assembly plant code
Change Category:	Test Change, Assembly Change
Change Sub-Category(s):	Material Change, Manufacturing Site Transfer

Sites Affected:

onsemi Sites	External Foundry/Subcon Sites
None	Good-Ark, China

Description and Purpose:

This Initial Notification announces to customers the plan to transfer DPAK packaged (Case Outline 369AA/D) products to a new assembly and test site of Suzhou Good-Ark Electronics, China for capacity expansion.

	Before Change	After Change	
Assembly Site	onsemi Seremban, Malaysia	onsemi Seremban, Malaysia	Good-Ark, China
Die Attach	Pb95Sn5	Pb95Sn5	Pb92.5Sn5Ag2.5



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Qualification Plan:

QV DEVICE NAME: MJD45H11-1G

RMS: S86768

PACKAGE: IPAK/ 369D

Test	Specification	Condition	Interval
High Temperature Reverse Bias	JESD22-A108	Ta=150°C, 100% max rated V	1008 hrs
High Temperature Storage Life	JESD22-A103	Ta= 150°C	1008 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	15000 cyc
Temperature Cycling	JESD22-A104	Ta= -55°C to +150°C, mounted form air to air	1000 cyc
High Temperature High Humidity Reverse Bias	JESD22-A110	85°C, 85% RH, bias	1008 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 Dimension	JESD22-B120		

QV DEVICE NAME: NTD6414ANT4G

RMS: S86770

PACKAGE: DPAK 3L/ 369AA

Test	Specification	Condition	Interval
High Temperature Reverse Bias	JESD22-A108	Ta=175°C, 80% max rated V	1008 hrs
High Temperature Gate Bias	JESD22-A108	Ta=175°C, 100% max rated Vgss	1008 hrs
High Temperature Storage Life	JESD22-A103	Ta= 175°C	1008 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	15000 cyc
Temperature Cycling	JESD22-A104	Ta= -55°C to +150°C, mounted form air to air	1000 cyc
Highly Accelerated Stress Test	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 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 Dimension	JESD22-B120		

Estimated date for qualification completion: 27 October 2023

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](#).

Part Number	Qualification Vehicle
NTD6416ANT4G	NTD6414ANT4G



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NTD6416ANLT4G	NTD6414ANT4G
NTD6415ANLT4G	NTD6414ANT4G
NTD6414ANT4G	NTD6414ANT4G
MJD112-1G	MJD45H11-1G
MJD45H11-1G	MJD45H11-1G
MJD44H11-1G	MJD45H11-1G

Appendix A: Changed Products

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DIKG: DIGI-KEY

Product	Customer Part Number	Qualification Vehicle	New Part Number	Replacement Supplier
NTD6416ANT4G		NTD6414ANT4G	NA	
NTD6415ANLT4G		NTD6414ANT4G	NA	
NTD6414ANT4G		NTD6414ANT4G	NA	
MJD112-1G		MJD45H11-1G	NA	
MJD45H11-1G		MJD45H11-1G	NA	
MJD44H11-1G		MJD45H11-1G	NA	
NTD6416ANLT4G		NTD6414ANT4G	NA	