



Initial Product/Process Change Notification

Document #: IPCN25565X

Issue Date: 20 Jul 2023

Title of Change:	Direct Material Change for XDFN3 and WQFN10	
Proposed First Ship date:	31 Oct 2023 or earlier if approved by customer	
Contact Information:	Contact your local onsemi Sales Office or Cyrus.Velasquez@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:	Product traceability will be maintained by date code	
Change Category:	Assembly Change	
Change Sub-Category(s):	Material Change	
Sites Affected:		
onsemi Sites	External Foundry/Subcon Sites	
onsemi Tarlac, Philippines	None	
Description and Purpose:		
onsemi would like to notify its customers the intent to qualify other direct material on the following products listed in this IPCN. FPCNs may be issued in phases based on the timing of qualification completion.		
Table 1: For NCP12700BMTTXG		
Material	From	To
Bond Wire	Gold Wire	Palladium Coated Copper Wire
Table 2: For NTNS3164NZT5G, NTNS3166NZT5G, NTNS3A67PZT5G		
Material	From	To
Bond Wire	Gold Wire	Palladium Coated Copper Wire
Lead Frame	Dynacraft Industries EFTEC64T Material	Haesung DS C7025 Material
	Dynacraft Industries EFTEC64T Material	Haesung DS C7025 Material
		Advanced Assembly Materials International Ltd. C7025 Material
There will be no changes on the other direct materials not listed above.		
There is no product marking change as a result of this change.		



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Qualification Plan:

QV DEVICE NAME: NTNS3164N2T5G

RMS: S87038

PACKAGE: XDFN 3

Test	Specification	Condition	Interval
High Temperature Storage Life	JESD22-A103	Ta= 150°C	1008 hrs
Preconditioning	J-STD-020 JESD-A113	MSL 1 @ 260°C, Pre TC, uHAST, HAST for surface mount pkgs only	
Temperature Cycling	JESD22-A104	Temp = -55°C to +150°C	1000 cyc
Intermittent Operating Life Test	MIL-STD-750, M 1037, AEC Q101	Ta=+25°C, delta Tj=100°C max, 2 min Ton=Toff is pkg dependent	15000 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: NTNS3A67N2T5G

RMS: S87037

PACKAGE: XDFN 3

Test	Specification	Condition	Interval
High Temperature Storage Life	JESD22-A103	Ta= 150°C	1008 hrs
Preconditioning	J-STD-020 JESD-A113	MSL 1 @ 260°C, Pre TC, uHAST, HAST for surface mount pkgs only	
Temperature Cycling	JESD22-A104	Temp = -55°C to +150°C	1000 cyc
Intermittent Operating Life Test	MIL-STD-750, M 1037, AEC Q101	Ta=+25°C, delta Tj=100°C max, 2 min Ton=Toff is pkg dependent	15000 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: NCP12700BMTTXG

RMS: S87040

PACKAGE: WQFN-10

Test	Specification	Condition	Interval
High Temperature Storage Life	JESD22-A103	Ta= 150°C	1008 hrs
Preconditioning	J-STD-020 JESD-A113	MSL 1 @ 260°C, Pre TC, uHAST, HAST for surface mount pkgs only	
Temperature Cycling	JESD22-A104	Temp = -65°C to +150°C	500 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

Estimated date for qualification completion: March 31, 2024



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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**.

Part Number	Qualification Vehicle
NCP12700BMTTXG	NCP12700BMTTXG
NTNS3A67PZT5G	NTNS3A67PZT5G
NTNS3166NZT5G	NTNS3164NZT5G
NTNS3164NZT5G	NTNS3164NZT5G