



Initial Product/Process Change Notification

Document #: IPCN25156Z

Issue Date: 14 Dec 2022

Title of Change:	WDFN6 Assembly Transfer from UTAC, Thailand to Seremban Malaysia Site 1.	
Proposed Changed Material First Ship Date:	30 Oct 2023 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 – Discrete components	
Contact information:	Contact your local onsemi Sales Office or BernardRajVellangani.Pelevindran@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 MohtAzizi.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	
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, Change of direct material supplier, Change of wire bonding	
Description and Purpose:		
	From	To
Assembly Site	UTAC, Thailand	Seremban Malaysia Site 1. (SBN Site 1)
LeadFrame	SFS Wettable Flank	Step Cut Wettable Flank
Die Attach	<ol style="list-style-type: none"> ABLETHERM 8600 CONDUCTIVE (NSV60101DMTWTBG, NSV60200DMTWTBG, NSV60200SMTWTBG, NSV60201SMTWTBG). EPOXY ABLESTICK 8200T (NSV20200DMTWTBG, NSV20201DMTWTBG) 	CRM1084P (All Device)

Bond Wire	1.3mil Gold Wire	1.3mil Palladium Coated Copper Wire
Mold Compound	<ol style="list-style-type: none"> Sumitomo G770HCD (NSV60101DMTWTBG, NSV60200DMTWTBG, NSV60200SMTWTBG, NSV60201SMTWTBG). MC G700LTD (NSV20200DMTWTBG, NSV20201DMTWTBG) 	MC EME-G720D Type (All Device)

Reason / Motivation for Change:	Process/Materials Change
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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:	
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onsemi Sites	External Foundry/Subcon Sites
onsemi Seremban, Malaysia	None

Marking of Parts/ Traceability of Change:	changed material may be identified by lot code or date code
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Reliability Data Summary:

QV DEVICE NAME: NSV60101DMTWTBG & NSV60200DMTWTBG
RMS: S86916(NSV60101DMTWTBG) & S74843, S73609(NSV60200DMTWTBG)
PACKAGE: WDFN6 2.0mmx2.0mmx0.75mm

Test	Specification	Condition	Interval
HTRB	JESD22-A108	Tj = Max rate Tj for device, bias = 100% of rated V for Q 101 Rev D	2016 hrs
HTSL	JESD22-A103	Ta =Max rate storage temp for device	2016 hrs
ELFR	AECQ100-008	may utilize either HTGB or HTRB conditions	48 hrs
PC	J-STD-020 JESD-A113	IR reflow at 260C	
HAST + PC	JESD22-A110	130°C, 85% RH, 18.8psig, bias 80% of rated V or 100V max	192 hrs
H3TRB + PC	JESD22-A101	Temp = +85°C; RH = 85%, 80% rated Volt	2016 hrs
TC + PC	JESD22-A104	Temp = -55°C to +150°C	2000 cycle
UHAST + PC	JESD22-A118	Temp = 130C, RH=85%, ~ 18.8 psig	96 hrs
IOL+PC	MIL STD750, M 1037 AEC Q101	Ta=+25°C, deltaTj=100°C max, xxx min Ton=Toff (pkg dependent)	2x cycle
RSH	JESD22- B106	Ta=268°C 10 sec dwell	
SD	JSTD002	Ta = 245°C, 5 sec	
Shift	AEC-Q101, MSB17722C	Post 1X HTRB, HTGB, HTSL, TC, HAST/H3TRB, IOL, AC/uHAST	

Estimated date for qualification completion: **10 April 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
NSV60201SMTWTBG	NA	NSV60101DMTWTBG
NSV60200SMTWTBG	NA	NSV60200DMTWTBG
NSV60200DMTWTBG	NA	NSV60200DMTWTBG
NSV60101DMTWTBG	NA	NSV60101DMTWTBG
NSV20201DMTWTBG	NA	NSV60101DMTWTBG
NSV20200DMTWTBG	NA	NSV60200DMTWTBG

Appendix A: Changed Products

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DIKG: DIGI-KEY

Product	Customer Part Number	Qualification Vehicle	New Part Number	Replacement Supplier
NSV60101DMTWTBG		NSV60101DMTWTBG	NA	