

Document #:IPCN23427X Issue Date:09 Jul 2020

	1		
Title of Change:	WDFN6L Seremban Dual Source Qualification Project.		
Proposed First Ship date:	14 Dec 2020 or earlier if approved by customer		
Contact Information:	Contact your local ON Semiconductor Sales Office or <a href="mailto:saziela.senin@onsemi.com">saziela.senin@onsemi.com</a>		
PCN Samples Contact:	Contact your local ON Semiconductor Sales Office or <a href="PCN.samples@onsemi.com">PCN.samples@onsemi.com</a> 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:	Different lot number and site codes between Cebu and Seremban.		
Change Category:	Assembly Change, Test Change		
Change Sub-Category(s):	Material Change		
Sites Affected:			
ON Semiconductor Sites		External Foundry/Subcon Sites	
ON Semiconductor Seremban, Malaysia		None	

#### **Description and Purpose:**

This Product Change Notification announces that ON Semiconductor is expanding Assembly and Test Operations of ON Cebu, Philippines former Fairchild Semiconductor for WDFN6L package to ON Seremban, Malaysia.

• No change on existing OPN. There will be two separate BOMs for ON Cebu, Philippines and ON Seremban, Malaysia.

These products will continue being Pb-free, Halide free and RoHS compliant.

Qualification tests are designed to show that the reliability of the impacted devices will continue to meet or exceed ON Semiconductor standards.

	Before Change Description	After Change Description
Lead Frame	Cebu - ETCHED LEADFRAME, PQFN, 2.0X2.0 MM, 6LDS, FULL DRAIN.	Cebu – E TCHED LEADFRAME, PQFN, 2.0X2.0 MM, 6LDS, FULL DRAIN.
		Seremban - WDFN 2.05 x 2.05 6L 0.65P WIDE LEADFRAME
Clip	Cebu - ETCHED CLIPFRAME, PQFN, 2.0 X 2.0 MM POWERCLIP SINGLE.	Cebu - ETCHED CLIPFRAME, PQFN, 2.0 X 2.0 MM POWERCLIP SINGLE.
	POWERCLIF SINGLE.	Seremban - Etch Clip wDFN6L 2.05x2.05 0.65P
Solder	Cebu - DA SLDR PASTE IND 92.5Pb5Sn2.5Ag NC-	Cebu - DA SLDR PASTE IND 92.5Pb5Sn2.5Ag NC-SMQ75
Solder	SMQ75	Seremban-DA Indium 9.72HF Type 4/89.5%ML (Die Attach Material)

TEM001790 Rev. C Page 1 of 4



Document #:IPCN23427X Issue Date:09 Jul 2020

Solder	Cebu - DA SLDR PASTE 92.5Pb5Sn2.5Ag NC-SMQ75 - 325+500 89%mtl (Clip Attach Material)	Cebu - DA SLDR PASTE 92.5Pb5Sn2.5Ag NC-SMQ75 - 325+500 89%mtl (Clip Attach Material)  Seremban - CB Indium 9.72HF Type 3/88.5%ML (Clip Attach Material)
Mold Compound	Cebu - MC GREEN HI CEL9240HF10LS 14MMX6.6G	Cebu - MC GREEN HI CEL9240HF10LS 14MMX6.6G  Seremban- SUMITOMO EME-G770HM TYPE D
Assembly Site	ON Semiconductor Philippines - Cebu	ON Semiconductor Philippines – Cebu  ON Semiconductor Malaysia – Seremban
Test Site	ON Semiconductor Philippines - Cebu	ON Semiconductor Philippines – Cebu  ON Semiconductor Malaysia – Seremban

There is no product marking change as a result of this change.

### **Qualification Plan:**

QV DEVICE NAME: NTLJS5D0N03CTAG

RMS : \$65441 PACKAGE : WDFN6

Test	Specification	Condition	Interval
HTRB	JESD22-A108	Ta=150°C, 100% max rated V	1008 hrs
HTGB	JESD22-A108	Ta=150°C, 100% max rated Vgss	1008 hrs
HTSL	JESD22-A103	Ta= 150°C	1008 hrs
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 2 min	15000 cyc
TC	JESD22-A104	Ta= -55°C to +150°C	1000 cyc
H3TRB	JESD22-A101	85°C, 85% RH, bias	2016 hrs
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C	
RSH	JESD22- B106	Ta = 265C, 10 sec	
SD	JSTD002	Ta = 245C, 5 sec	

TEM001790 Rev. C Page 2 of 4



Document #:IPCN23427X Issue Date:09 Jul 2020

QV DEVICE NAME: NTLJS17D0P03P8ZTAG

RMS : S65442 PACKAGE : WDFN6

Test	Specification	Condition	Interval
HTRB	JESD22-A108	Ta=150°C, 100% max rated V	1008 hrs
HTGB	JESD22-A108	Ta=150°C, 100% max rated Vgss	1008 hrs
HTSL	JESD22-A103	Ta= 150°C	1008 hrs
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 2 min	15000 cyc
TC	JESD22-A104	Ta= -55°C to +150°C	1000 cyc
H3TRB	JESD22-A101	85°C, 85% RH, bias	2016 hrs
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C	
RSH	JESD22- B106	Ta = 265C, 10 sec	
SD	JSTD002	Ta = 245C, 5 sec	

QV DEVICE NAME: NTLJS4D9N03HTAG

RMS : \$65444 PACKAGE : WDFN6

Test	Specification	Condition	Interval
TRB	JESD22-A108	Ta=150°C, 100% max rated V	1008 hrs
HTGB	JESD22-A108	Ta=150°C, 100% max rated Vgss	1008 hrs
HTSL	JESD22-A103	Ta= 150°C	1008 hrs
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 2 min	15000 cyc
TC	JESD22-A104	Ta= -55°C to +150°C	1000 cyc
H3TRB	JESD22-A101	85°C, 85% RH, bias	2016 hrs
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C	
RSH	JESD22- B106	Ta = 265C, 10 sec	
SD	JSTD002	Ta = 245C, 5 sec	

Estimated date for qualification completion: 4 September 2020

TEM001790 Rev. C Page 3 of 4



Document #:IPCN23427X Issue Date:09 Jul 2020

#### **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>.

Part Number	Qualification Vehicle	
NTLJS5D0N03CTAG	NTLJS5D0N03CTAG	
NTLIS3D9N03CTAG	NTLJS5D0N03CTAG	
NTLIS17D0P03P8ZTAG	NTLJS17D0P03P8ZTAG	
NTLJS7D2P02P8ZTAG	NTLJS17D0P03P8ZTAG	
NTLJS3D0N02P8ZTAG	NTLJS17D0P03P8ZTAG	
NTLJS4D9N03HTAG	NTLJS4D9N03HTAG	
NTLJS4D7N03HTAG	NTLIS4D9N03HTAG	

TEM001790 Rev. C Page 4 of 4



### **Appendix A: Changed Products**

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Product	Customer Part Number	Qualification Vehicle	New Part Number	Replacement Supplier
NTLJS5D0N03CTAG		NTLJS5D0N03CTAG		
NTLJS17D0P03P8ZTAG		NTLJS17D0P03P8ZTAG		
NTLJS7D2P02P8ZTAG		NTLJS17D0P03P8ZTAG		
NTLJS3D0N02P8ZTAG		NTLJS17D0P03P8ZTAG		