Initial Product/Process Change Notification

Document #:IPCN25336X
Issue Date:17 May 2023

Title of Change:	Qualification Assembly site in UTAC Thailand for FSA2257L10X, FSA3157L6X, FSUSB11L10X, NC7SB3157L6X, NC7SZ66L6X
Proposed First Ship date:	30 Sep 2023 or earlier if approved by customer
Contact Information:	Contact your local onsemi Sales Office or Thomas.Chen@onsemi.com and Naruedol.Srisamran@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:	The affected products will be identified with date code
Change Category:	Assembly Change
Change Sub-Category(s):	Material Change, Manufacturing Site Transfer

Sites Affected:

onsemi Sites	**External Foundry/Subcon Sites**
None	UTAC, Thailand

Description and Purpose:

onsemi purpose Qualification Assembly site in UTAC Thailand with new die attach, mold compound, package substrate and Carrier tape for FSA2257L10X, FSA3157L6X, FSUSB11L10X, NC7SB3157L6X, NC7SZ66L6X.

Product material change description:

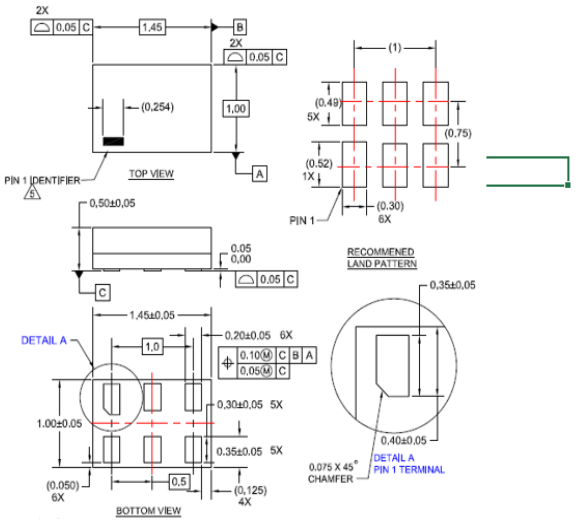
	From	To
Assembly Site	HANA Thailand	UTAC Thailand
LeadFrame	No change	No change
Die Attach	DA FILM LI LE5003 P8AS 100ST	DAF HR5104
Bond Wire	No change	No change
Mold Compound	MC NITTO GE100LFCG 14MMX4.6G	Kyosera / KE-G1250LKDS-30 BU10C
Package Substrate	PS LGAB LOGIC KINSUS	FAST PRINT LGA SUBSTRATE
Carrier tape	Carrier tape for package thickness at 0.55 max & 0.65max	Carrier tape for package thickness at 0.68 max

Product package outline change description:

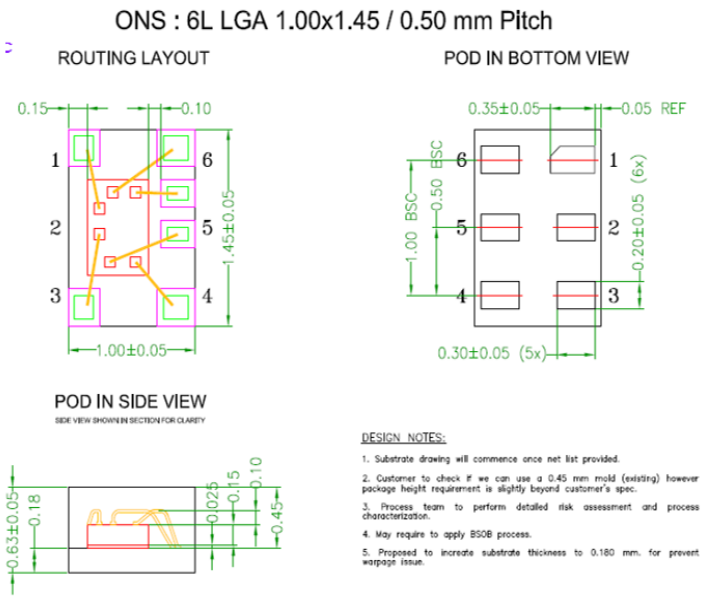
- **For FSA3157L6X, NC7SB3157L6X, NC7SZ66L6X**

Dimension	HANA Thailand (existing)			UTAC Thailand (new site)			Remark
	Min	Nom	Max	Min	Nom	Max	
A	**0.45**	**0.50**	**0.55**	0.58	0.63	0.68	UTAC thicker than HANA
b	**0.15**	**0.20**	**0.25**	0.15	0.20	0.25	Same
D	**1.40**	**1.45**	**1.50**	1.40	1.45	1.50	Same
E	**0.95**	**1.00**	**1.05**	0.95	1.00	1.05	Same
e	**0.50 BSC**			0.50 BSC			Same
e1	**1.00 BSC**			1.00 BSC			Same
L	**0.25**	**0.30**	**0.35**	0.20	0.25	0.30	Outer lead smaller than existing but still can use the same footprint.
L1	**0.30**	**0.35**	**0.40**	0.25	0.30	0.35	Outer lead smaller than existing but still can use the same footprint.
K	**-**	**0.05**	**-**	-	0.10	-	Still can use the same footprint.

HANA Thailand



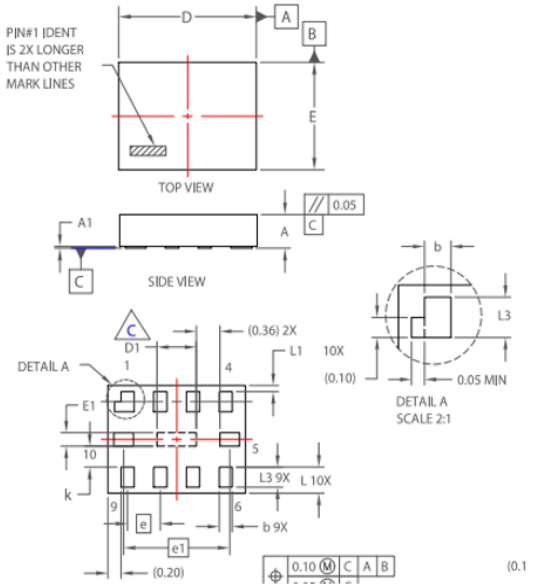
UTAC Thailand



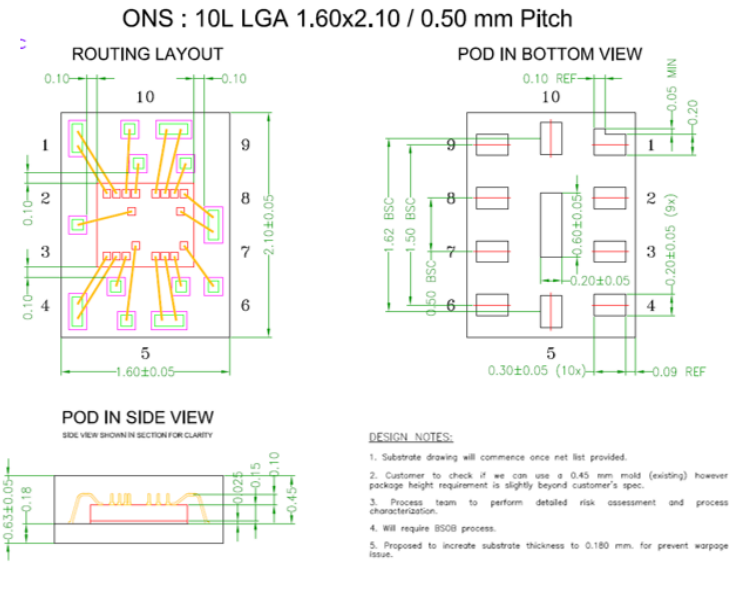
- **For FSA2257L10X, FSUSB11L10X**

Dimension	HANA Thailand (existing)			UTAC Thailand (new site)			Remark
	Min	Nom	Max	Min	Nom	Max	
A	0.50	0.55	0.65	0.58	0.63	0.68	UTAC thicker than HANA
b	0.15	0.20	0.25	0.15	0.20	0.25	Same
D	2.00	2.10	2.20	2.05	2.10	2.15	Comply
D1	0.55	0.60	0.65	0.55	0.60	0.65	Same
E	1.50	1.60	1.70	1.50	1.60	1.70	Same
E1	0.15	0.20	0.25	0.15	0.20	0.25	Same
e	0.50 BSC			0.50 BSC			Same
e1	1.62 BSC			1.62 BSC			Same
L	0.25	0.30	0.42	0.25	0.30	0.42	Same
L1	0.00	0.09	0.15	0.09 REF			Comply
L3	0.25	0.30	0.35	0.25	0.30	0.35	Same

HANA Thailand



UTAC Thailand



There is no product marking change because of this change.

Qualification Plan:

QV DEVICE NAME - FSA2257L10X
RMS - 78724
PACKAGE - UQFN-10

Test	Specification	Condition	Interval
High Temperature Operating Life	JESD22-A108	Ta=125°C, 100 % max rated Vcc	1008 hrs
High Temperature Storage Life	JESD22-A103	Ta= 150°C	1008 hrs
Preconditioning	J-STD-020 JESD-A113	MSL 1 @ 260 °C	
Temperature Cycling	JESD22-A104	Ta= -65°C to +150°C	500 cyc
Solderability	JSTD002	Ta = 245°C, 5 sec	
Physical Dimensions	JESD22-B120		

QV DEVICE NAME - FSA3157L6X
RMS - 78959
PACKAGE - SIP-6

Test	Specification	Condition	Interval
High Temperature Operating Life	JESD22-A108	Ta=125°C, 100 % max rated Vcc	1008 hrs
High Temperature Storage Life	JESD22-A103	Ta= 150°C	1008 hrs
Preconditioning	J-STD-020 JESD-A113	MSL 1 @ 260 °C	
Temperature Cycling	JESD22-A104	Ta= -65°C to +150°C	500 cyc
Solderability	JSTD002	Ta = 245°C, 5 sec	
Physical Dimensions	JESD22-B120		

Estimated date for qualification completion: 30 June 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
NC7SZ66L6X	FSA3157L6X
FSA2257L10X	FSA2257L10X
FSUSB11L10X	FSA2257L10X
FSA3157L6X	FSA3157L6X
NC7SB3157L6X	FSA3157L6X

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Appendix A: Changed Products

PCN#: IPCN25336X
Issue Date: May 17, 2023

DIKG: DIGI-KEY

Product	Customer Part Number	Qualification Vehicle	New Part Number	Replacement Supplier
NC7SZ66L6X		FSA3157L6X	NA	
FSUSB11L10X		FSA2257L10X	NA	
FSA3157L6X		FSA3157L6X	NA	
NC7SB3157L6X		FSA3157L6X	NA	
FSA2257L10X		FSA2257L10X	NA	