PCN Number: 2		201	191209000.1A		PCN	N Date: Jan. 15, 2020		Jan. 15, 2020	
Title: Qualification of RFA for select devices		AB and TI Malaysia as additional Fab site and Assembly site options							
Customer Contact:			PCN Manager		Dept:			Quality Services	
Proposed 1 st Ship Date:		Mar 9, 2020 Estima		ated Sample bility:		ple	Date provided at sample request.		
Change Type:									
Assembly Site		Assembly Process			Assembly Materials				
Design		☐ Electrical Specification				Mechanical Specification			
Test Site		Packing/Shipping/Labeling				Test	Process		
Wafer Bump Site		Wafer Bump Material				Wafer Bump Process			
						Wafe	er Fab Process		
				Part number chan	ge				
PCN Details									

Description of Change:

Revision A is to correct the Assembly Site Origin (22L) reference in the Changes to product identification resulting from the PCN section.

This change notification is to announce the addition of RFAB and TI Malaysia as additional Fab site and Assembly site options for selected devices listed in the "Product Affected" section.

Fab Site:

С	urrent Fab Site	e	Additional Fab Site		
Current Fab Process Site		Wafer Diameter	Additional Fab Site	Process	Wafer Diameter
MIHO8	LBC7	200 mm	RFAB	LBC7	300 mm

Assembly Site:

Assembly Site	Assembly Site Origin	Assembly Country Code	Assembly Site City
TI Mexico	MEX	MEX	Aguascalientes
TI Malaysia	MLA	MYS	Kuala Lumpur

There are no Material differences between sites. Qual details are provided in the Qual Data Section.

Reason for Change:

Continuity of Supply

Anticipated impact on Form, Fit, Function, Quality or Reliability (positive / negative):

None

Changes to product identification resulting from this PCN:

Fab Site:

Current Chip Site	Chip Site Origin Code (20L)	Chip Site Country Code (21L)	Chip Site City
MIHO8	MH8	JPN	Ibaraki
New Chip Site	Chip Site Origin Code (20L)	Chip Site Country Code (21L)	Chip Site City
RFAB	RFB	USA	Richardson

Assembly Site

Current Assembly Site		
TI Mexico	Assembly Site Origin (22L)	ASO: MEX
TI Malaysia	Assembly Site Origin (22L)	ASO: QAB MLA

Sample product shipping label (not actual product label)

TEXAS INSTRUMENTS MADE IN: Malaysia

MSL 2 /260C/1 YEAR SEAL DT MSL 1 /235C/UNLIM 03/29/04

(1P) SN74LS07NSR (D) 0336 31T)LOT: 3959047MLA 4W) TKY(1T) 7523483S12

(2P) REV: (20L) CSO: SHE (21L) CCO:USA (22L) ASO: MLA (23L) ACO: MYS

OPT: ITEM: (L)T0:3750

Product Affected:

Group 1: Adding RFAB and TI Malaysia Assembly site					
SN65HVD182DDR	SN65LBC182DDR	THVD1500DR			

Group 2: Adding RFAB only

THVD1500D

Qualification Report

Approve Date 23-Sep-2019

Qualification Results

Data Displayed as: Number of lots / Total sample size / Total failed

Туре	Test Name / Condition	Duration	Qual Device: <u>THVD1500D</u>	QBS Process Reference: <u>TPS51217DSC</u>	QBS Package Reference: <u>SN65HVD1781AQDRQ1</u>
AC	Autoclave 121C	96 Hours	-	3/231/0	3/231/0
CDM	ESD - CDM	1500 V	1/3/0	-	-
ED	Electrical Characterization	Per Datasheet Parameters	Pass	•	-
HAST	Biased HAST 130C/85%RH	96 Hours	-	3/231/0	3/231/0
НВМ	ESD - HBM	4000 V	1/3/0	-	-
НВМ	ESD - HBM	16000 V (Pins 6 and 7 Only)	1/3/0	-	-
HTOL	Life Test, 125C	1000 Hours	-	-	2/154/0
HTOL	Life Test, 135C	635 Hours	-	3/231/0	-
HTOL	Life Test, 140C	480 Hours	-	-	1/77/0
HTSL	High Temp Storage Bake 175C	500 Hours	-	,	1/45/0
HTSL	High Temp Storage Bake, 170C	420 Hours	-	3/231/0	-
LU	Latch-up	(Per JESD78)	1/6/0	-	-
тс	Temperature Cycle -65/150C	500 Cycles	-	3/231/0	3/231/0
WBP	Bond Pull	Wires	1/76/0	-	3/228/0
WBS	Ball Bond Shear	Wires	1/76/0	-	3/228/0

- QBS: Qual By Similarity
- Qual Device THVD1500D is qualified at LEVEL1-260C
- Preconditioning was performed for Autoclave, Unbiased HAST, THB/Biased HAST, Temperature Cycle, Thermal Shock, and HTSL, as applicable
- The following are equivalent HTOL options based on an activation energy of 0.7eV: 125C/1k Hours, 140C/480 Hours, 150C/300 Hours, and 155C/240 Hours
- The following are equivalent HTSL options based on an activation energy of 0.7eV: 150C/1k Hours, and 170C/420 Hours
- The following are equivalent Temp Cycle options per JESD47: -55C/125C/700 Cycles and -65C/150C/500 Cycles

Quality and Environmental data is available at TI's external Web site: http://www.ti.com/

Green/Pb-free Status:

Qualified Pb-Free (SMT) and Green

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