PCN Number: 20200212001.1 PCN Date: Feb 18, 2020 Qualification of MIHO8 as an additional Wafer Fab Site option for select devices in LBC7 Title: **Customer Contact: PCN Manager** Dept: **Quality Services Estimated Sample** Date provided at **Proposed 1st Ship Date:** May 18, 2020 **Availability:** sample request. **Change Type:** Assembly Site **Assembly Process Assembly Materials** Design **Electrical Specification Mechanical Specification Test Site** Packing/Shipping/Labeling **Test Process** Wafer Bump Process Wafer Bump Site Wafer Bump Material Wafer Fab Site Wafer Fab Process Wafer Fab Materials Part number change **PCN Details**

Description of Change:

Texas Instruments is pleased to announce the qualification of its MIHO8 fabrication facility as an additional Wafer Fab source for the selected devices listed in "Product Affected" section.

Current Sites			Additional Sites		
Current Fab Site			Additional Fab Site	Process	Wafer Diameter
DP1DM5	LBC7	200mm	MIHO8	LBC7	200mm

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):

Changes to product identification resulting from this PCN:

Current

Chip Site	Chip Site Origin (20L)	Chip Site Country Code (21L)	Chip Site City
DP1DM5	DM5	USA	Dallas

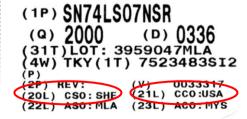
New Fab Site

Chip Site	Chip Site Origin (20L)	Chip Site Country Code (21L)	Chip Site City
MIHO8	мн8	JPN	Ibaraki

Sample product shipping label (not actual product label)







Product Affected:		
TPS22945DCKR	TPS22945DCKRG4	

Qualification Report

Approve Date 05-Feb-2020

Qualification Results

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

Туре	Test Name / Condition	Duration	Qual Device: TPS22945DCKR	QBS Process Reference: SN0406082PW	QBS Package Reference: TPS22942DCKR
AC	Autoclave (121C, 2 atm)	96 Hours	-	3/231/0	3/231/0
ED	Electrical Characterization	Per Datasheet Parameters	Pass	Pass	Pass
ELFR	Early Life Failure Rate, 125C	48 Hours	-	3/2400/0	-
HAST	Biased HAST, 130C/85%RH	96 Hours	-	3/231/0	3/231/0
HBM	ESD - HBM	2000 V	1/3/0	1/3/0	-
CDM	ESD - CDM	1000 V	1/3/0	1/3/0	-
HTOL	Life Test, 140C	480 Hours	-	3/231/0	
HTOL	Life Test, 150C	300 Hours	-	-	3/231/0
HTSL	High Temp. Storage Bake, 150C	1000 Hours	-	3/231/0	3/231/0
LU	Latch-up	(per JESD78)	1/6/0	1/6/0	-
TC	Temperature Cycle, -65/150C	500 Cycles	-	3/231/0	3/231/0

- QBS: Qual By Similarity
- Qual Device TPS22945DCKR 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 Tl's external Web site: http://www.ti.com/

Green/Pb-free Status:

Qualified Pb-Free (SMT) and Green

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