12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN# 20161006000
Alternate Fab (MIHO8) and Assembly (UTAC) site Qualifications for select devices
Change Notification / Sample Request

Date: 10/6/2016
To: MOUSER PCN

Dear Customer:

This is an announcement of a change to a device that is currently offered by Texas Instruments. The details of this change are on the following pages.

We request you acknowledge receipt of this notification within **30** days of the date of this notice. Lack of acknowledgement of this notice within 30 days constitutes acceptance of the change. If you require samples or additional data to support your evaluation, please request within 30 days.

The changes discussed within this PCN will not take effect any earlier than **90** days from the date of this notification, unless customer agreement has been reached on an earlier implementation of the change. This notification period is per TI's standard process.

This notice does not change the end-of-life status of any product. Should product affected be on a previously issued product withdrawal/discontinuance notice, this notification does not extend the life of that product or change the life time buy offering/discontinuance plan.

For questions regarding this notice, contact your local Field Sales Representative or the PCN Manager (PCN_ww_admin_team@list.ti.com).

Sincerely,

PCN Team
SC Business Services

20161006000
Attachment: 1

Products Affected:

The devices listed on this page are a subset of the complete list of affected devices. According to our records, these are the devices that you have purchased within the past twenty-four (24) months. The corresponding customer part number is also listed, if available.

DEVICE	CUSTOMER PART NUMBER
TPS56C215RNNR	null
TPS56C215RNNT	null

Technical details of this Product Change follow on the next page(s).

PCN Number:	20161006000	PCN Date:	Oct 6, 2016
Title:	Alternate Fab (MIHO8) and Assembly (UTAC) site Qualifications for select devices		
Customer Contact:	PCN Manager	Dept:	Quality Services
Proposed 1st Ship Date:	Jan 6, 2017	Estimated Sample Availability:	Date provided at sample request.

Change Type:

☒	Assembly Site	☐	Design	☒	Wafer Bump Site
☐	Assembly Process	☐	Data Sheet	☐	Wafer Bump Material
☒	Assembly Materials	☐	Part number change	☐	Wafer Bump Process
☐	Mechanical Specification	☒	Test Site	☒	Wafer Fab Site
☐	Packing/Shipping/Labeling	☐	Test Process	☐	Wafer Fab Materials
				☐	Wafer Fab Process

PCN Details

Description of Change:

Texas Instruments is pleased to announce the qualification of both an additional fab (MIHO8) and Assembly/Test (UTAC) site for the devices listed in the "Product Affected" section of this document.

Current Sites				Additional Sites			
Current Fab Site	Fab Process	Bump Site	Wafer Diameter	Additional Fab Site	Fab Process	Bump Site	Wafer Diameter
RFAB	LBC7	CLARK-BP	300 mm	MIHO8	LBC7	DBUMP	200 mm

Assembly Site:

	TI CLARK	UTAC
Lead Finish	NiPdAu	Matte Sn
Mold compound	4222790	CZ0339

Test coverage, insertions, conditions will remain consistent with current testing and verified with test MQ.

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):

☐	No Impact to the Material Declaration	☒	Material Declarations or Product Content reports are driven from production data and will be available following the production release. Upon production release the revised reports can be obtained at the site link below http://www.ti.com/quality/docs/materialcontentsearch.tsp

Changes to product identification resulting from this PCN:

Current

Chip Sites	Chip Site Origin Code (20L)	Chip Site Country Code (21L)	Chip Site City
RFAB	RFB	USA	Richardson

New

Chip Site	Chip Site Origin Code (20L)	Chip Site Country Code (21L)	Chip Site City
MIHO8	**MH8**	**JPN**	**Ibaraki**

Assembly Site

Current Assembly Site		
TI Clark	Assembly Site Origin (22L)	ASO: QAB
UTAC Thai Limited	Assembly Site Origin (22L)	ASO: NSE

Sample product shipping label (not actual product label)

ASSEMBLY SITE CODES: QAB =I, NSE = J

Product Affected:

TPS56C215RNNR	TPS56C215RNNT

Qualification Report

TPS56C215 Pebble Beach 12A Device Qual (RFAB -CLARK_BP - UTAC flow)
Approve Date 11-Aug-2016

Product Attributes

Attributes	Qual Device: TPS56C215RNN PG2.0 18PIN	Qual Device: TPS56C215RNN PG2.0 17PIN	QBS Product Reference: TPS56C215RNN PG1.0	QBS Product Reference: TPS56C215RNN PG2.0 17PIN	QBS Product Reference: TPS56C215RNN PG2.0 17PIN	QBS Product Reference: TPS56C215RNN PG2.0 18PIN	QBS Product Reference: TPS56C215RNN PG2.0 18PIN
Assembly Site	UTAC	UTAC	CLARK AT	CLARK AT	UTAC	CLARK AT	UTAC
Package Family	HOTROD	HOTROD	HOTROD	HOTROD	HOTROD	HOTROD	HOTROD
Wafer Fab Supplier	RFAB	RFAB	RFAB	RFAB	MIHO	RFAB	MIHO
Wafer Process	LBC7	LBC7	LBC7	LBC7	LBC7	LBC7	LBC7

- QBS: Qual By Similarity
- Qual Devices qualified at LEVEL2-260C: TPS56C215RNN PG2.0 17PIN, TPS56C215RNN PG2.0 18PIN

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

Type	Test Name / Condition	Duration	Qual Device: TPS56C215RNN PG2.0 18PIN	Qual Device: TPS56C215RNN PG2.0 17PIN	QBS Product Reference: TPS56C215RNN PG1.0	QBS Product Reference: TPS56C215RNN PG2.0 17PIN	QBS Product Reference: TPS56C215RNN PG2.0 17PIN	QBS Product Reference: TPS56C215RNN PG2.0 18PIN	QBS Product Reference: TPS56C215RNN PG2.0 18PIN
AC	Autoclave 121C	96 Hours	-	-	-	2/154/0	1/77/0	1/77/0	2/154/0
ED	Electrical Characterization	Per Datasheet Parameters	-	1/30/0	-	1/30/0	1/30/0	1/5/0	1/5/0
HAST	Biased HAST, 130C/85%RH	96 Hours	-	-	-	3/231/0	3/231/0	1/77/0	-
HBM	ESD - HBM	4000 V	-	-	-	-	-	1/3/0	1/3/0
CDM	ESD - CDM	2000 V	-	-	-	-	-	1/3/0	1/3/0
HTOL	Life Test, 125C	1000 Hours	-	-	1/77/0	1/77/0	1/77/0	1/77/0	-
HTSL	High Temp. Storage Bake, 170C	420 Hours	-	-	-	2/154/0	2/154/0	1/77/0	1/77/0
LU	Latch-up	(per JESD78)	-	-	-	-	-	1/6/0	1/6/0
TC	Temperature Cycle, -55/125C	700 Cycles	1/77/0	-	-	-	-	3/231/0	3/231/0

- 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

Qualification Report

TPS56C215 Pebble Beach 12A Device Qual (MIHO -> DBUMP -> UTAC Flow)
Approve Date 11-Aug-2016

Product Attributes

Attributes	Qual Device: TPS56C215RNN PG2.0 18PIN	Qual Device: TPS56C215RNN PG2.0 17PIN	QBS Product Reference: TPS56C215RNN PG1.0	QBS Product Reference: TPS56C215RNN PG2.0 17PIN	QBS Product Reference: TPS56C215RNN PG2.0 17PIN	QBS Product Reference: TPS56C215RNN PG2.0 18PIN	QBS Product Reference: TPS56C215RNN PG2.0 18PIN	QBS Process Reference: TPS51217D.SC	QBS Process Reference: TPS62110R.SA
Assembly Site	UTAC	UTAC	CLARK AT	UTAC	CLARK AT	CLARK AT	UTAC	CLARK/AT	CAR
Package Family	HOTROD	HOTROD	HOTROD	HOTROD	HOTROD	HOTROD	HOTROD	WSON	QFN
Wafer Fab Supplier	MIHO	MIHO	RFAB	RFAB	RFAB	RFAB	RFAB	RFAB	MIHO8
Wafer Process	LBC7.3	LBC7.3	LBC7.3	LBC7.3	LBC7.3	LBC7.3	LBC7.3	LBC7	LBC7

- QBS: Qual By Similarity
- Qual Devices qualified at LEVEL2-260C: TPS56C215RNN PG2.0 17PIN, TPS56C215RNN PG2.0 18PIN

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

Type	Test Name / Condition	Duration	Qual Device: TPS56C215RNN PG2.0 18PIN	Qual Device: TPS56C215RNN PG2.0 17PIN	QBS Product Reference: TPS56C215RNN PG1.0	QBS Product Reference: TPS56C215RNN PG2.0 17PIN	QBS Product Reference: TPS56C215RNN PG2.0 17PIN	QBS Product Reference: TPS56C215RNN PG2.0 18PIN	QBS Product Reference: TPS56C215RNN PG2.0 18PIN	QBS Process Reference: TPS51217D.SC	QBS Process Reference: TPS62110R.SA
AC	Autoclave 121C	96 Hours	2/154/0	1/77/0	-	-	2/154/0	1/77/0	-	3/231/0	3/231/0
ED	Electrical Characterization	Per Datasheet Parameters	1/5/0	1/30/0	-	1/30/0	1/30/0	1/5/0	-	3/60/0	-
ELFR	Early Life Failure Rate, 140C	48 Hours	-	-	-	-	-	-	-	-	3/1681/0
HAST	Biased HAST, 130C/85%RH	96 Hours	-	3/231/0	-	-	3/231/0	1/77/0	-	3/231/0	3/231/0
HBM	ESD - HBM	4000 V	1/3/0	-	-	-	-	1/3/0	-	-	-
CDM	ESD - CDM	2000 V	1/3/0	-	-	-	-	1/3/0	-	-	-
HTOL	Life Test, 125C	1000 Hours	-	1/77/0	1/77/0	-	1/77/0	1/77/0	-	-	-
HTOL	Life Test, 135C	635 Hours	-	-	-	-	-	-	-	3/231/0	-
HTOL	Life Test, 140C	480 Hours	-	-	-	-	-	-	-	-	3/231/0
HTSL	High Temp. Storage Bake, 170C	420 Hours	1/77/0	2/154/0	-	-	2/154/0	1/77/0	-	3/231/0	3/231/0
LU	Latch-up	(per JESD78)	1/6/0	-	-	-	-	1/6/0	-	3/18/0	3/15/0
TC	Temperature Cycle, -55/125C	700 Cycles	3/231/0	-	-	-	-	3/231/0	1/77/0	-	-
TC	Temperature Cycle, -65/150C	500 Cycles	3/231/0	-	-	-	-	3/231/0	-	3/231/0	3/231/0
TS	Thermal Shock, -65/150C	500 Cycles	-	-	-	-	-	-	-	-	3/231/0

- 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

For questions regarding this notice, e-mails can be sent to the regional contacts shown below, or you can contact your local Field Sales Representative.

Location	E-Mail
USA	PCNAmericasContact@list.ti.com
Europe	PCNEuropeContact@list.ti.com
Asia Pacific	PCNAsiaContact@list.ti.com
Japan	PCNJapanContact@list.ti.com