PCN Number:	20150601001	**PCN Date:**	6/03/2015
Title:	Die Revision Change for select TPS3780 devices		
Customer Contact:	PCN Manager	**Dept:**	Quality Services
Proposed 1st Ship Date:	9/03/2015	**Estimated Sample Availability:**	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
☐	Wafer Fab Site	☐	Wafer Fab Materials	☐	Wafer Fab Process
		☐	Part number change		

PCN Details

Description of Change:

This notification is to announce a die revision and datasheet change to the devices listed in the Product Affected Section of this document. Communication regarding the reason for the change with the previous revision of this product was made through Texas Instruments Selective Inventory Exchange Process notice of 6/24/2014. The new Die Revision is now available and customers must submit their approval of this PCN to begin using this new Die Revision during the 90-day notification period.

The Die Revision and the datasheet number will be changing:

Current		**New**	
Die Revision	Datasheet Number	**Die Revision**	**Datasheet Number**
B	SBVS216A	**C**	**SBVS250**

Reason for Change:

Below is a summary of the design changes in Die Revision C:

1. OTP initialization was changed to be made more robust to VDD brownouts.
2. Eliminate false OUTs conditions during fast transients on the SENSE lines within min. and max. operating range.
3. Eliminate false OUTs conditions during fast VDD transients within its min. and max. operating range.

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

None

Changes to product identification resulting from this PCN:

Die Rev designator will change as shown in the table & sample label below:

Current	**New**
Die Revision [2P]	**Die Revision [2P]**
B	**C**

Sample product shipping label to indicate die rev location (**not actual product label**)

Product Affected:	
TPS3780ADRYR	TPS3780ADRYT

Qualification Report

TPS3780ADRY, TPS3780BDRY, TPS3780CDRY, TPS3780DDRY (HNT/MIHO)
Approved 04/23/2015

Product Attributes

Attributes	Qual Device: TPS3780ADRY	Qual Device: TPS3780CDRY	Qual Device: TPS3780DDRY	Qual Device: TPS3780BDRY	QBS Product: TPS3780ADRY	QBS Product: TPS386000RGP	QBS Product: TPS3779ADRY	QBS Process: TPS62110R SA	QBS Process: TPS72750D SE	QBS Package: T SSA 23159R SER	QBS Package: TPD4 S014DRY	QBS Package: T SSA 21366R SER	QBS Package: VSP1000D SF
Assembly Site	HANA-THAILAND	HANA-THAILAND	HANA-THAILAND	HANA-THAILAND	UTAC/NSE 2	CARSEM-S	HANA-THAILAND	CAR	UTAC	HANA-THAILAND	HANA-THAILAND	HANA-THAILAND	HANA-THAILAND
Package Family	SON	SON	SON	SON	SON	QFN	SON	QFN	SON	uQFN	SON	uQFN	X2SON
Wafer Fab Site	MIHO 8	MIHO-8	MIHO-8	MIHO-8	MIHO-8	DMOS5	MIHO 8	MIHO8	MIHO8	FFAB	FFAB	FFAB	MIHO8
Wafer Fab Process	LBC7	LBC7	LBC7	LBC7	LBC7	LBC7	LBC7	LBC7	LBC7	50b10	50B10	ASLC10	LBC7

- QBS: Qual By Similarity
- Qual Devices qualified at LEVEL1-260C: TPS3780ADRY, TPS3780CDRY, TPS3780DDRY, TPS3780BDRY

Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: TPS3780ADRY	Qual Device: TPS3780CDRY	Qual Device: TPS3780DDRY	Qual Device: TPS3780BDRY	QBS Product: TPS3780ADRY	QBS Product: TPS386000RGP	QBS Product: TPS3779ADRY	QBS Process: TPS62110R SA	QBS Process: TPS72750D SE	QBS Package: T SSA 23159R SER	QBS Package: TPD4 S014DRY	QBS Package: T SSA 21366R SER	QBS Package: VSP1000D SF
HAST	Biased HAST, 130C/85% RH	96 Hours	-	-	-	-	-	-	1/77/0	3/231/0	-	-	-	-	-
AC	Autoclave 121C	96 Hours	-	-	-	-	-	1/77/0	-	3/231/0	-	-	-	3/231/0	1/77/0
TC	Temperature Cycle, -65/150C	500 Cycles	-	-	-	-	-	1/77/0	1/77/0	3/231/0	-	-	-	3/231/0	1/76/0
HTSL	High Temp. Storage Bake, 170C	420 Hours	-	-	-	-	-	-	-	3/231/0	-	-	-	-	1/77/0
TS	Thermal Shock, -65/150C	500 Cycles	-	-	-	-	-	-	-	3/231/0	-	-	-	-	-
HTOL	Life Test, 140C	480 Hours	-	-	-	-	-	-	-	3/231/0	-	-	-	-	-
HTOL	Life Test, 150C	300 Hours	-	-	-	-	-	1/77/0	-	-	1/77/0	-	-	-	-
ELFR	Early Life Failure Rate, 140C	48 Hours	-	-	-	-	-	-	-	3/1880/0	-	-	-	-	-
WBS	Ball Bond Shear	Wires	-	-	-	-	-	-	-	-	-	3/228/0	3/228/0	-	-
WBP	Bond Pull	Wires	-	-	-	-	-	-	-	-	-	3/228/0	3/228/0	-	-
PD	Physical Dimensions	--	-	-	-	-	-	-	-	-	-	3/30/0	3/30/0	-	-
HBM	ESD - HBM	2000 V	-	-	-	-	1/3/0	1/3/0	1/3/0	-	1/3/0	-	-	-	-
CDM	ESD - CDM	500 V	1/3/0	-	-	-	1/3/0	1/3/0	-	3/9/0	1/3/0	-	-	-	-
LU	Latch-up	(per JESD78)	-	-	-	-	-	1/6/0	1/6/0	3/15/0	1/6/0	-	-	-	1/6/0
ED	Electrical Characterization	Per Datasheet Parameters	1/30/0	1/10/0	1/10/0	1/10/0	1/30/0	1/30/0	1/30/0	-	1/30/0	-	-	-	1/30/0
EDR	EEPROM Data Retention, 170C	420 Hours	-	-	-	-	-	1/77/0	-	-	1/77/0	-	-	-	-

- 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(BMT) and Green

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

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