

PCN Number:	20210120000.1	PCN Date:	Jan 20, 2020
Title:	TPS2662x Design Change and Datasheet Update		
Customer Contact:	PCN Manager	Dept:	Quality Services
Proposed 1st Ship Date:	April 20, 2021	Estimated Sample Availability:	Date provided at sample request.
Change Type:			
<input type="checkbox"/>	Assembly Site	<input type="checkbox"/>	Assembly Process
<input checked="" type="checkbox"/>	Design	<input checked="" type="checkbox"/>	Electrical Specification
<input type="checkbox"/>	Test Site	<input type="checkbox"/>	Packing/Shipping/Labeling
<input type="checkbox"/>	Wafer Bump Site	<input type="checkbox"/>	Wafer Bump Material
<input type="checkbox"/>	Wafer Fab Site	<input type="checkbox"/>	Wafer Fab Materials
<input type="checkbox"/>		<input type="checkbox"/>	Part number change

PCN Details

Description of Change:

This notification is to inform of a design change to the TPS2662x devices. Affected devices are listed in the Product Affected section of this document.

The design change is a digital logic fix to improve UVLO (UnderVoltage LockOut) and RCB (Reverse Current Blocking) delays.

TPS2662x devices exhibit increased delay [$t_{FWD(dly)}$] from reverse current blocking for $V_{OUT} - V_{IN} > 2.5V$. This delay [$t_{FWD(dly)}$] has a typical value of 63 μ s for $V_{OUT} - V_{IN} < 2.5V$. After this design change, this delay will be reduced to a typical value of 63 μ s even for $V_{OUT} - V_{IN} > 2.5V$.

The datasheet number will be changing after expiration of this PCN:

	Current	New
Device	Datasheet Number	Datasheet Number
TPS2662	SLVSDT4E	SLVSDT4F

The product datasheet revision F notification will be issued after expiration of this PCN. The new datasheet revision will remove the UVLO_trec timing parameter for TPS26620, TPS26622 and TPS26624 devices in the existing datasheet.

Reason for Change:

The new die improves UVLO (UnderVoltage LockOut) and RCB (Reverse Current Blocking) delays.

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

None

Changes to product identification resulting from this PCN:

None

Product Affected: Design Change and datasheet updates

TPS26620DRCR	TPS26622DRCR	TPS26624DRCR
TPS26620DRCT	TPS26622DRCT	TPS26624DRCT
TPS26621DRCR	TPS26623DRCR	TPS26625DRCR
TPS26621DRCT	TPS26623DRCT	TPS26625DRCT

Qualification Report

Approve Date 28-Oct-2020

Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: <u>TPS26625D</u> <u>RC</u>	QBS Product Reference: <u>TPS26625D</u> <u>RC</u>	QBS Product Reference: <u>TPS26600P</u> <u>WP</u>	QBS Product Reference: <u>TPS26600P</u> <u>WP</u>	QBS Product Reference: <u>TPS26602P</u> <u>WP</u>	QBS Product Reference: <u>TPS26602P</u> <u>WP</u>	QBS Process Reference: <u>SN96019P</u> <u>FP</u>	QBS Package Reference: <u>TPS3850G09D</u> <u>RC</u>
AC	Autoclave 121C	96 Hours	-	1/77/0	-	-	-	-	3/231/0	3/231/0
ED	Electrical Characterization	Per Datasheet Parameters	Pass	Pass	-	Pass	-	Pass	Pass	Pass
HAST	Biased HAST, 130C/85% RH	96 Hours	-	1/77/0	1/77/0	-	-	-	3/231/0	3/231/0
HBM	ESD - HBM	1500 V	1/3/0	1/3/0	-	1/3/0	-	-	3/9/0	1/3/0
CDM	ESD - CDM	1500 V	1/3/0	1/3/0	-	1/3/0	-	-	3/9/0	-
HTOL	Life Test, 150C	300 Hours	-	1/77/0	-	1/77/0	-	-	3/231/0	1/77/0
HTSL	High Temp. Storage Bake, 170C	420 Hours	-	1/77/0	1/77/0	-	-	-	3/231/0	3/231/0
LU	Latch-up	(per JESD78)	1/6/0	1/6/0	-	1/6/0	-	-	1/6/0	1/6/0
TC	Temperature Cycle, -65/150C	500 Cycles	-	1/77/0	1/76/0	-	1/77/0	-	3/231/0	3/231/0
UHASt	Unbiased HAST, 130C/85% RH	96 hours	-	-	1/75/0	-	-	-	-	-
WBP	Bond Pull	Wires	-	1/76/0	1/76/0	-	-	-	-	-
WBS	Ball Bond Shear	Wires	-	1/76/0	1/76/0	-	-	-	-	-

- 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

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