



12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN# 20130130000
Notification of Die Revision for TPS6216x and TPS6217x Devices
Change Notification / Sample Request

Date: 2/20/2013
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
Phone: (214) 480-6037
Fax: (214) 480-6659

20130130000
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 |
|---------------|-----------------------------|
| TPS62160DGKT | null |
| TPS62160DSGR | null |
| TPS62160DSGT | null |
| TPS62161DSGT | null |
| TPS62162DSGT | null |
| TPS62163DSGR | null |
| TPS62163DSGT | null |
| TPS62170DSGT | null |
| TPS62172DSGT | null |
| TPS62173DSGT | null |

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

| | | | | | |
|---|--|---------------------------------------|---------------------------------|--------------------------|--------------------------|
| PCN Number: | 20130130000 | | | PCN Date: | 02/20/2013 |
| Title: | Die Revision for TPS6216x and TPS6217x Devices | | | | |
| Customer Contact: | PCN Manager | Phone: | +1(214)480-6037 | Dept: | Quality Services |
| Proposed 1st Ship Date: | 5/21/2013 | Estimated Sample Availability: | Date provided at sample request | | |
| Change Type: | | | | | |
| <input type="checkbox"/> | Assembly Site | <input type="checkbox"/> | Assembly Process | <input type="checkbox"/> | Assembly Materials |
| <input checked="" type="checkbox"/> | Design | <input type="checkbox"/> | Electrical Specification | <input type="checkbox"/> | Mechanical Specification |
| <input type="checkbox"/> | Test Site | <input type="checkbox"/> | Packing/Shipping/Labeling | <input type="checkbox"/> | Test Process |
| <input type="checkbox"/> | Wafer Bump Site | <input type="checkbox"/> | Wafer Bump Material | <input type="checkbox"/> | Wafer Bump Process |
| <input type="checkbox"/> | Wafer Fab Site | <input type="checkbox"/> | Wafer Fab Materials | <input type="checkbox"/> | Wafer Fab Process |
| PCN Details | | | | | |
| Description of Change: | | | | | |
| <p>The purpose of this notification is to inform of a die revision for TPS6216x and TPS6217x devices.</p> <p>In order to continuously improve our products, a design change of this device family is done covering the following points:</p> <ul style="list-style-type: none"> - Redesign of the High side gate Driver, IPTAT generator & POR. - Input Buffer hysteresis increased (metal change). - Version code was changed. - Die designator was changed. - ESD: No change. <p>This design change does not affect the electrical performance and functionality of the device. The datasheet remains unchanged.</p> <p>Details on the die revision name are provided below.</p> | | | | | |
| Die Revision: | | | | | |
| Device Family | Change From: | Change To: | | | |
| TPS6216x | LTPS6216XC | LTPS6216XD | | | |
| TPS6217x | LTPS6217XC | LTPS6216XD | | | |
| Reason for Change: | | | | | |
| To provide continuous quality improvement of TI products. | | | | | |
| Anticipated impact on Form, Fit, Function, Quality or Reliability (positive / negative): | | | | | |
| None | | | | | |

Changes to product identification resulting from this PCN:

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

| Current | New |
|--------------|--------------|
| Die Rev [2P] | Die Rev [2P] |
| C | D |

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

| | | | |
|---|---|---|--|
|  TEXAS INSTRUMENTS MADE IN: Malaysia 2DC: 2Q: MSL '2 /260C/1 YEAR SEAL DT MSL 1 /235C/UNLIM 03/29/04 OPT: ITEM: 39 LBL: 5A (L)TO:1750 |  |  | (1P) SN74LS07NSR (Q) 2000 (D) 0336 (31T) LOT: 3959047MLA (4W) TKY (1T) 7523483SI2 (P) (2P) REV: (V) 0033317 (20L) CSO: SHE (21L) CCO:USA (22L) ASO: MLA (23L) ACO: MYS |
|---|---|---|--|

Product Affected:

| | | | |
|--------------|--------------|--------------|--------------|
| TPS62160DGKR | TPS62161DSGT | TPS62170DSGR | TPS62172DSGR |
| TPS62160DGKT | TPS62162DSGR | TPS62170DSGT | TPS62172DSGT |
| TPS62160DSGR | TPS62162DSGT | TPS62171DSGR | TPS62173DSGR |
| TPS62160DSGT | TPS62163DSGR | TPS62171DSGT | TPS62173DSGT |
| TPS62161DSGR | TPS62163DSGT | | |

Qualification Data: Approved 2/12/2013

This qualification has been specifically developed for the validation of this change. The qualification data validates that the proposed change meets the applicable released technical specifications.

Qual Vehicle: TPS62160DSG

Die Construction Details

| | | | |
|----------------------------|-------------|--------------------|---------|
| Wafer Fab Site: | MIH8 | Wafer Fab Process: | LBC7X |
| Wafer Diameter: | 200mm | Mold Compound: | 4208625 |
| Assembly Site: | MLA | Mount Compound: | 4208458 |
| # Pins-Designator, Family: | 8-DSG, TQFN | Die Revision: | D |

Qualification: Plan Test Results

| Reliability Test | Conditions | Sample Size/Fail |
|-----------------------------|------------|------------------|
| ESD CDM | 250V | 3/0 |
| ESD HBM | 1000V | 3/0 |
| Electrical Characterization | -- | Pass |
| Latch-up | Per JESD78 | 6/0 |

Reference Qualification Data: Approved 11/03/2011

This qualification has been specifically developed for the validation of this change. The qualification data validates that the proposed change meets the applicable released technical specifications.

Qual Vehicle: TPS62160DSG

Die Construction Details

| | | | |
|----------------------------|-------------|--------------------|---------|
| Wafer Fab Site: | MIH8 | Wafer Fab Process: | LBC7X |
| Wafer Diameter: | 200mm | Mold Compound: | 4208625 |
| Assembly Site: | MLA | Mount Compound: | 4208458 |
| # Pins-Designator, Family: | 8-DSG, TQFN | Die Revision: | C |

Qualification: Plan **Test Results**

| Reliability Test | Conditions | Sample Size/Fail |
|-----------------------------|---------------------|------------------|
| **Life Test | 150C (168 Hrs) | 77/0 |
| **Temperature Cycle | -65/+150C (500 Cyc) | 77/0 |
| ESD CDM | 250V | 3/0 |
| ESD HBM | 1000V | 3/0 |
| Electrical Characterization | -- | Pass |
| Latch-up | Per JESD78 | 6/0 |

**Preconditioning sequence: level 2 @ 260C

Reference Qualification Data: Approved 10/09/2009

This qualification has been specifically developed for the validation of this change. The qualification data validates that the proposed change meets the applicable released technical specifications.

Qual Vehicle: TPSX6120DRC

Die Construction Details

| | | | |
|----------------------------|-------------|--------------------|---------|
| Wafer Fab Site: | MIH8 | Wafer Fab Process: | LBC7 |
| Wafer Diameter: | 200mm | Mold Compound: | 4208625 |
| Assembly Site: | MLA | Mount Compound: | 4208458 |
| # Pins-Designator, Family: | 10-DRC, SON | Die Revision: | C |

Qualification: Plan **Test Results**

| Reliability Test | Conditions | Sample Size/Fails | | |
|-----------------------------|---------------------------|-------------------|-------|-------|
| | | Lot#1 | Lot#2 | Lot#3 |
| **Autoclave 121C | 121C, 2 ATM (96 Hrs) | 77/0 | 77/0 | 77/0 |
| **Life Test | 150C (300 Hrs), Vcc Max | 77/0 | 77/0 | 77/0 |
| **High Temp. Storage Bake | 150C (168 Hrs) | 77/0 | 77/0 | 77/0 |
| **Temperature Cycle | -65C/+150C (500 Cyc) | 77/0 | 77/0 | 77/0 |
| ESD CDM | 500V | 3/0 | - | - |
| Electrical Characterization | Full Temp & Voltage range | Pass | Pass | Pass |

**Preconditioning sequence: level 2 @ 260C

For questions regarding this notice, e-mails can be sent to the regional contacts shown below or to 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 |