

12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN#20170619000 Qualification of an additional Substrate Manufacturing Subcontractor for the TPS82130SIL

Change Notification / Sample Request

Date: June 27, 2017 **To:** Newark/Farnell 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 www admin team@list.ti.com).

Sincerely,

PCN Team SC Business Services

20170619000 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.

DEVICETPS82130SILT

CUSTOMER PART NUMBER

null

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

| PCN Number: 20170619000 | | | 00 | PCN Date | | | | ate: | June | 27 2017 | | | |
|------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|------------|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------|----------|--------------------------------------------------|---------|--------------------|--------|------------|------|
| Title: | Qualification of an additional Substrate Manufacturing Subcontractor for the TPS82130SIL | | | | | | | | | | | | |
| Customer PCI | | PCN A | N Manager D | | | De | ept: | Quality Services | | | | | |
| Proposed 1 st Ship Date: | | | Sept 27 2017 | | | | Estima | ated Sample Availability: Provided upon Request | | | • | | |
| Change T | уре: | | | | | | | | | | | | |
| Asse | embly Site | • | | \boxtimes | Assembly Process | | | | Asse | Assembly Materials | | | |
| Desi | gn | | | | Electrical Specification | | | | Mech | nanical | l Spe | cification | |
| Test | Site | | | | Packing/Shipping/Labeling | | | | Test | Proces | SS | | |
| Wafe | er Bump S | ite | | | Wafer B | Wafer Bump Material | | | | Wafer Bump Process | | | |
| Wafe | er Fab Site | | | | Wafer Fab Materials | | | | | Wafer Fab Process | | | |
| | | | | | Part number change | | | | | | | | |
| | | | | | | PC | N Deta | ails | | | | | |
| Description | on of Cha | nge: | | | | | | | | | | | |
| | TI is qualifying an additional substrate manufacturing subcontractor (ACCESS) for TPS82130SIL. Construction differences are as follows: | | | | | | | | | | | | |
| | What | | | | | Cu | rrent (| | | New (A | | | |
| | Substrat | e Mate | erial | I R1570 | | | | SE |)#EN02. | J0103 | 57A | | |
| Solder mask | | | | | XV501T | | | SR7300G | | | | | |
| | Adhesiv | e | | | | SID#704654 | | | N/A | | | | |
| | Cavity Filler | | | | N/A | | | SD#ABF GX-T31 | | | | | |
| Peason fo | Reason for Change: | | | | | | | | | | | | |
| | | i a | | | | | | | | | | | |
| Continuity | | on Fi | | | . Funct | ion | Ouslite | . ov Dolinki | lia | (no altinu | - / | | ·-> |
| None | ea impact | On FI | t, r | огп | n, Funct | ion, | , Qualit | y or Reliabi | iity (| (positive | e / ne | gativ | /e): |
| | | | | | | | | | | | | | |
| Anticipat | | | | | | | | | | | | | |
| the Material produ Declaration Upon | | | oduction on produ | rial Declarations or Product Content reports are driven from uction data and will be available following the production release. production release the revised reports can be obtained from the CO website. | | | | | | | | | |
| | | | | | | | | | | | | | |
| Changes to product identification resulting from this PCN: | | | | | | | | | | | | | |
| None | | | | | | | | | | | | | |
| Product Affected | | | | | | | | | | | | | |
| | | ТР | รลว | 130 | SILT | | | | | | | | |
| TPS82130SILR TPS82130SILT | | | | O1L1 | | | | | | | | | |



Qualification Report

TPS82130SIL, TPS82140SIL, TPS82150SIL Qualification Memo Approve Date 02-May-2017

Product Attributes

| Attributes | Qual Device: TPS82130SIL | QBS Product Reference: TPS82130SIL | QBS Process Reference: TPS62110RSA | |
|---------------------|--------------------------|---------------------------------------|---------------------------------------|--|
| Assembly Site | PTI-TAIWAN | PTI-TAIWAN | CAR | |
| Package Family | MicroSIP | MicroSIP | QFN | |
| Flammability Rating | UL 94 V-0 | UL 94 V-0 | UL 94 V-0 | |
| Wafer Fab Supplier | MIHO8-CLARK/BP | MIHO8-CLARK/BP | MIHO8 | |
| Wafer Process | LBC7 | LBC7 | LBC7 | |

⁻ QBS: Qual By Similarity

Qualification Results

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

| Type | Test Name / Condition | Duration | Qual Device: TPS82130SIL | QBS Product Reference: TPS82130SIL | QBS Process Reference: TPS62110RSA | |
|-------|-------------------------------|--------------------------|-----------------------------|------------------------------------------|---------------------------------------|--|
| AC | Autoclave 121C | 96 Hours | - | - | 3/231/0 | |
| ED | Electrical Characterization | Per Datasheet Parameters | Pass | Pass | - | |
| ELFR | Early Life Failure Rate, 140C | 48 Hours | - | - | 3/1881/0 | |
| FLAM | Flammability (IEC 695-2-2) | | 1/5/0 | - | - | |
| FLAM | Flammability (UL 94V-0) | | 1/5/0 | - | - | |
| FLAM | Flammability (UL-1694) | | 1/5/0 | - | - | |
| HAST | Biased HAST, 110C/85%RH | 264 Hours | 2/154/0 | - | - | |
| HAST | Biased HAST, 130C/85%RH | 96 Hours | - | 1/77/0 | 3/231/0 | |
| HBM | ESD - HBM | 2500 V | 1/3/0 | 1/3/0 | - | |
| CDM | ESD - CDM | 1500 V | 1/3/0 | 1/3/0 | - | |
| HTOL | Life Test, 125C | 1000 Hours | 3/266/0 | - | - | |
| HTOL | Life Test, 140C | 480 Hours | - | - | 3/231/0 | |
| HTSL | High Temp Storage Bake 150C | 1000 Hours | 3/240/0 | 3/231/0 | - | |
| HTSL | High Temp Storage Bake 170C | 420 Hours | - | - | 3/231/0 | |
| LU | Latch-up | (per JESD78) | - | 1/8/0 | 3/15/0 | |
| PD | Physical Dimensions | | Pass | Pass | - | |
| SD | Solderability | 8 Hours Steam Age | 3/66/0 | - | - | |
| TC | Temperature Cycle, -55/125C | 700 Cycles | 3/231/0 | 3/231/0 | - | |
| TC | Temperature Cycle, -65/150C | 500 Cycles | - | - | 3/231/0 | |
| TS | Thermal Shock, -65/150C | 500 Cycles | - | - | 3/231/0 | |
| UHAST | Unbiased HAST 110C/85%RH | 264 Hours | 3/231/0 | - | - | |
| UHAST | Unbiased HAST 130C/85%RH | 96 Hours | - | 3/231/0 | - | |

⁻ Preconditioning was performed for Autoclave, Unbiased HAST, THB/Biased HAST, Temperature Cycle, Thermal Shock, and HTSL, as applicable

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 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 |

⁻ Qual Device TPS82130SIL is qualified at LEVEL2-260C

⁻ 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