

12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN# 20180411001.1 Qualification of RFAB for select devices in the LBC8LV process technology Change Notification / Sample Request

Date: April 16, 2018

To: PREMIER 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).

PCN Team SC Business Services

20180411001.1 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.

DEVICEADS131A02IPBSR
ADS131A04IPBSR

CUSTOMER PART NUMBER

null null

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

| PCN Number: 201 | | 80411001.1 | | PCN Date: | | ite: | Apr 16, 2018 | | | |
|-------------------------------------|-------------|--|---------------------|---------------------------|------|---------------|---------------------------------------|--------------------------|------------------|----------------------------------|
| Title: Qualification of RFA | | AB for select devices in the LBC8LV process technology | | | | | | | | |
| Customer Contact: | | | | PCN Manager | | Dept: | | | Quality Services | |
| Proposed 1 st Ship Date: | | | | 1 1111 16 71118 | | | Estimated Sample Availability: | | nple | 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 | | | |
| | | \boxtimes | Wafer Fab Materials | | Wafe | r Fab Process | | | | |
| | | | | Part number change | | | | | | |
| | PCN Details | | | | | | | | | |

Description of Change:

Texas Instruments is pleased to announce the qualification of RFAB as an additional wafer fab site option for the LBC8LV devices listed in the product affected section of this document.

| | Current Sites | | Additional Sites | | |
|---------------------|----------------------|-------------------|---------------------|---------|-------------------|
| Current Fab Site | Process | Wafer Diameter | Additional Fab Site | Process | Wafer Diameter |
| DP1DM5 | LBC8LV | 200 mm | RFAB | LBC8LV | 300 mm |

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):

None

Changes to product identification resulting from this PCN:

Current:

| Chip Site | Chip Site Origin Code (20L) | Chip Site Country Code (21L) | Chip Site City |
|-----------|--------------------------------|------------------------------|----------------|
| DP1DM5 | DM5 | USA | Dallas |

New:

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

Sample product shipping label (not actual product label)





(1P) \$N74L\$07N\$R (Q) 2000 (D) 0336 (31T)LOT: 3959047MLA (4W) TKY(1T) 7523483812 (P) (2P) REV: (V) 0033317 (20L) CSO: SHD (21L) CCO: USA (22L) ASO: MLA (23L) ACO: MYS

| Product Affecte | :t |
|-----------------|----|
|-----------------|----|

| ADS131A02IPBS | ADS131A02IPBSR | ADS131A04IPBS | ADS131A04IPBSR |
|---------------|----------------|---------------|----------------|
| | | | |

Qualification Report

ADS131A02IPBS and ADS131A04IPBS offload from DMOS5 to RFAB Approve Date 11-Dec-2017

Product Attributes

| Attributes | Qual Device: ADS131A02IPBS | Qual Device: ADS131A04IPBS | QBS Process Reference: TMP468AIYFF | QBS Package Reference: ADS131A04IPBS |
|---------------------|-------------------------------|-------------------------------|---------------------------------------|---|
| Assembly Site | TAI | TAI | CLARK | TAI |
| Package Family | TQFP | TQFP | DSBGA | TQFP |
| Flammability Rating | UL 94 V-0 | UL 94 V-0 | UL 94 V-0 | UL 94 V-0 |
| Wafer Fab Supplier | RFAB | RFAB | RFAB | DM5 |
| Wafer Process | LBC8LV | LBC8LV | LBC8LV | LBC8LV |

⁻ QBS: Qual By Similarity

Qualification Results

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

| Туре | Test Name / Condition | Duration | Qual Device: ADS131A02IPBS | Qual Device: ADS131A04IPBS | QBS Process Reference: TMP468AIYFF | QBS Package Reference: ADS131A04IPBS |
|-------|-------------------------------|--------------------------|-------------------------------|-------------------------------|---------------------------------------|---|
| ED | Electrical Characterization | Per Datasheet Parameters | Pass | Pass | Pass | - |
| ELFR | Early Life Failure Rate, 125C | 48 Hours | - | - | 3/2400/0 | - |
| HAST | Biased HAST, 130C/85%RH | 96 Hours | - | - | 3/227/0 | 3/231/0 |
| HBM | ESD - HBM | 2500 V | - | 1/3/0 | 2/6/0 | - |
| CDM | ESD - CDM | 1000 V | - | 1/3/0 | 3/9/0 | 1/3/0 |
| HTOL | Life Test, 150C | 300 Hours | - | - | 3/231/0 | - |
| HTSL | High Temp. Storage Bake, 170C | 420 Hours | - | - | 3/231/0 | - |
| LU | Latch-up | (per JESD78) | - | 1/6/0 | 1/6/0 | 1/12/0 |
| PD | Physical Dimensions | - | - | - | 3/60/0 | - |
| SD | Surface Mount Solderability | Pb Free | - | - | 3/108/0 | - |
| SBS | WCSP SolderBall Shear | - | - | - | 3/150/0 | - |
| TC | Temperature Cycle, -55/125C | 700 Cycles | - | - | 3/230/0 | - |
| TC | Temperature Cycle, -65/150C | 500 Cycles | - | - | - | 3/231/0 |
| UHAST | Unbiased HAST, 130C/85%RH | 96 Hours | - | - | 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 -55C/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 |

⁻ Qual Devices qualified at LEVEL2-260C: ADS131A02IPBS, ADS131A04IPBS