TEXAS INSTRUMENTS 12500 TI Boulevard, MS 8640, Dallas, Texas 75243

# PCN# 20140715000
# Qualification of Fluorine Free ILD on CMOS9T Technology
# Change Notification / Sample Request

**Date:** 7/15/2014
**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: +1(214) 480-6037
Fax: +1(214) 480-6659

## 20140715000
## 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 |
|---|---|
| ADS1293CISQE/NOPB | null |
| LDC1000NHRR | null |
| LDC1000NHRT | null |

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

| | | | |
|---|---|---|---|
| **PCN Number:** | 20140715000 | **PCN Date:** | 07/15/2014 |

| | |
|---|---|
| **Title:** | Qualification of Fluorine Free ILD on CMOS9T 5V technology. |

| | | | | | |
|---|---|---|---|---|---|
| **Customer Contact:** | PCN Manager | **Phone:** | +1(214)480-6037 | **Dept:** | Quality Services |

| | | | |
|---|---|---|---|
| ***Proposed 1st Ship Date:** | 10/15/2014 | **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 change notification is to announce the qualification of Fluorine Free ILD dielectric composition on the CMOS9T 5V technology.

**Current**

| Chip Site | Fab Process | Wafer Diameter | Fluorine ILD Composition |
|---|---|---|---|
| MAINEFAB | CMOS9T 5V | 200mm | HDP = 4.5%, FSG=6.0% |

**New**

| **Chip Site** | **Fab Process** | **Wafer Diameter** | **Fluorine ILD Composition** |
|---|---|---|---|
| **MAINEFAB** | **CMOS9T 5V** | **200mm** | **0%** |

**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:**

None

**Product Affected:**

| | | | |
|---|---|---|---|
| ADS1293CISQ/NOPB | LDC1000NHRR | LMP90507CISQX/NOPB | LMP91300NHZR |
| ADS1293CISQE/NOPB | LDC1000NHRT | LMP91010DGSR | LMP91300NHZT |
| ADS1293CISQX/NOPB | LMP90507CISQ/NOPB | LMP91010DGST | LMP91300YZRR |
| LDC1000NHRJ | LMP90507CISQE/NOPB | LMP91300NHZJ | LMP91300YZRT |

## Reference Qualification Data: CMOS9T-5V Fluorine Free Process

### Qualification Data: (Approved 4/16/2013)

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

**Qualification Device: LM3533TME** (MSL LEVEL1-260C)

**Package Construction Details**

| | | | |
|---|---|---|---|
| Wafer Fab Site: | MAINEFAB | Wafer Fab Process: | CMOS9T 5V |
| Wafer Diameter: | 200mm | Metallization: | Al .5%Cu |
| Passivation: | OXIDE/NITRIDE | | |

**Qualification:** ☐ **Plan** ☒ **Test Results**

| Reliability Test | Conditions | Sample Size / Fail | |
|---|---|---|---|
| | | Lot#1 | Lot#2 |
| High Temp Operating Life | 125C (1000 Hrs) | 77/0 | - |
| Temp Cycle | -65/150C (500 Cyc) | 77/0 | 77/0 |

**Preconditioning: MSL1@260C

### Qualification Data: (Approved 4/23/2013)

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

**Qualification Device: LM8330TME/NOPB** (MSL LEVEL1-260C)

**Package Construction Details**

| | | | |
|---|---|---|---|
| Wafer Fab Site: | MAINEFAB | Wafer Fab Process: | CMOS9T 5V |
| Wafer Diameter: | 200mm | Metallization: | Al .5%Cu |
| Passivation: | OXIDE/NITRIDE | | |

**Qualification:** ☐ **Plan** ☒ **Test Results**

| Reliability Test | Conditions | Sample Size / Fail | |
|---|---|---|---|
| | | Lot#1 | Lot#2 |
| High Temp Operating Life | 150C (500 Hrs) | 77/0 | - |

**Preconditioning: MSL1@260C

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 |