

#### 12500 TI Boulevard, MS 8640, Dallas, Texas 75243

# PCN# 20190110000.1 Transfer of select P2-XMOS devices from GFAB to DFAB Wafer Fab site Change Notification / Sample Request

**Date:** January 15, 2019

To: TOKYO ELECTRON DEVICE (DSTR) 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

## 20190110000.1 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.

**DEVICE** LM629M-8/NOPB **CUSTOMER PART NUMBER** 

null

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

| PCN Number: 201                     |  | 0190110000.1                                     |                          | PCN I | <b>IN Date:</b> Jan 15, 2019   |             | Jan 15, 2019                     |                        |  |  |
|-------------------------------------|--|--|--------------------------|-------|--------------------------------|-------------|----------------------------------|------------------------|--|--|
| Title: Transfer of select I         |  | P2-XMOS devices from GFAB to DFAB Wafer Fab site |                          |       |                                |             |                                  |                        |  |  |
| <b>Customer Contact:</b>            |  |  | PCN Manager              |       | Dept:                          |             |                                  | Quality Services       |  |  |
| Proposed 1 <sup>st</sup> Ship Date: |  |  | Apr 15, 2019             |       | Estimated Sample Availability: |             | Date provided at sample request. |                        |  |  |
| Change Type:                        |  |  |                          |       |                                |             |                                  |                        |  |  |
| Assembly Site                       |  | Assembly Process                                 |                          |       | Assembly Materials             |             |                                  |                        |  |  |
| Design                              |  |  | Electrical Specification |       |                                |             | Me                               | chanical Specification |  |  |
| Test Site                           |  | Packing/Shipping/Labeling                        |                          | J     |                                | Tes         | st Process                       |                        |  |  |
| Wafer Bump Site                     |  |  | Wafer Bump Material      |       |                                |             | Wa                               | ifer Bump Process      |  |  |
|                                     |  | $\boxtimes$                                      | Wafer Fab Materials      |       |                                | $\boxtimes$ | Wa                               | ifer Fab Process       |  |  |
| ☐ Part numbe                        |  |  |                          |       | Part number chan               | ge          |                                  |                        |  |  |
| DCN Details                         |  |  |                          |       |                                |             |                                  |                        |  |  |

## PCN Details

# **Description of Change:**

This change notification is to announce the transfer of select P2-XMOS devices from GFAB to the DFAB (DL-LIN) Wafer Fab site for the selected devices listed in the "Product Affected" section.

|                     | Current Fab Site |                   | New Fab Site    |         |                   |
|---------------------|------------------|-------------------|-----------------|---------|-------------------|
| Current Fab<br>Site | Process          | Wafer<br>Diameter | New Fab<br>Site | Process | Wafer<br>Diameter |
| GFAB6               | P2-XMOS          | 150 mm            | DL-LIN          | P2-XMOS | 200 mm            |

| GFAB6 Die Metallization | DL-LIN Die Metallization |  |  |
|-------------------------|--------------------------|--|--|
| 12kA - Al 0.5%Cu        | 16kA - Al 0.5%Cu         |  |  |

Qual details are provided in the Qual Data Section.

## **Reason for Change:**

Greenock, Scotland (GFAB) Wafer Fab site closure

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

None

## **Changes to product identification resulting from this PCN:**

#### **Current:**

| Current Chip Site | Chip Site Origin Code (20L) | Chip Site Country Code (21L) | Chip Site City |
|-------------------|-----------------------------|------------------------------|----------------|
| GFAB6             | GF6                         | GBR                          | Greenock       |

## **New Fab Site:**

| New Chip Site | Chip Site Origin Code (20L) | Chip Site Country Code (21L) | Chip Site City |
|---------------|-----------------------------|------------------------------|----------------|
| DL-LIN        | DLN                         | USA                          | Dallas         |

Sample product shipping label (not actual product label)





(1P) SN74LS07NSR (P) 0336 31T)LOT: 3959047MLA 4W) TKY(1T) 7523483S12 (20L) CSO: SHE (21L) CCO:USA (22L) ASO: MLA (23L) ACO: MA

#### **Product Affected:**

| LM629M-6/NOPB | LM629M-8/NOPB | LM629MX-8/NOPB | LM629MX-8/S7002371 |  |  |  |  |
|---------------|---------------|----------------|--------------------|--|--|--|--|
| LM629M-8      |               |                |                    |  |  |  |  |

# Qualification Report Approve Date 08-January-2019

#### Qualification Results

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

| Туре | Test Name / Condition         | Duration                 | Qual Device: LM629M-8/NOPB | QBS Process Reference: TLV9002ID |
|------|-------------------------------|--------------------------|----------------------------|----------------------------------|
| AC   | Autoclave (121C, 2atm)        | 96 Hours                 | 1/77/0                     | 3/231/0                          |
| ED   | Electrical Characterization   | Per Datasheet Parameters | Pass                       | Pass                             |
| ELFR | Early Life Failure Rate, 125C | 48 Hours                 | 1/800                      | 3/2400/0                         |
| HAST | Biased HAST, 130C/85%RH       | 96 Hours                 | -                          | 3/231/0                          |
| HBM  | ESD - HBM                     | 1000 V                   | 3/9/0                      | 3/9/0                            |
| CDM  | ESD - CDM                     | 1000 V                   | 3/9/0                      | 3/9/0                            |
| HTOL | Life Test, 125C               | 300 Hours                | 3/231/0                    | 3/231/0                          |
| HTSL | High Temp. Storage Bake, 170C | 420 Hours                | 1/77/0                     | 3/231/0                          |
| LU   | Latch-up                      | (per JESD78)             | 3/18/0                     | 3/18/0                           |
| TC   | Temperature Cycle, -65/150C   | 500 Cycles               | 1/77/0                     | 3/231/0                          |

- QBS: Qual By Similarity
- Qual Device LM629M-8/NOPB is qualified at LEVEL3-260C
- 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

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    |