12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN# 20180215002
Transfer of select MGCMOS devices from GFAB to SFAB Wafer Fab site
Change Notification / Sample Request

Date: February 26, 2018
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_ww_admin_team@list.ti.com).

PCN Team
SC Business Services

20180215002
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
ADC0832CCWM/NOPB	null
LMC7660IMX/NOPB	null
ADC0834CCWM/NOPB	null
MF10CCWMX/NOPB	null
MF10CCWM/NOPB	null

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

PCN Number:	20180215002	**PCN Date:**	Feb 26, 2018
Title:	Transfer of select MGCMOS devices from GFAB to SFAB Wafer Fab site		
Customer Contact:	PCN Manager	**Dept:**	Quality Services
Proposed 1st Ship Date:	May 26, 2018	**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 transfer of select MGCMOS devices from GFAB to the SFAB (SH-BIP-1) Wafer Fab site for the selected devices listed in the "Product Affected" section.

Current Fab Site			New Fab Site		
Current Fab Site	**Process**	**Wafer Diameter**	**New Fab Site**	**Process**	**Wafer Diameter**
GFAB6	MGCMOS	150 mm	SH-BIP-1	MGCMOS	150 mm

GFAB Die Metallization	SH-BIP-1 Die Metallization
Al/1%Si	Al/1%Si/0.5%Cu

Added 0.5% Cu to Al, which is a best practice for Electromigration.

Qual details are provided in the Qual Data Section.

Reason for Change:

GFAB 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
SH-BIP-1	**SHE**	**USA**	**Sherman**

Sample product shipping label (not actual product label)

Product Affected:

ADC0808CCV/NOPB	ADC0834CCN/NOPB	ADC0848CCVX/NOPB	LMC7660IN/NOPB
ADC0808CCVX/NOPB	ADC0834CCWM/NOPB	DS14C88M/NOPB	MF10CCWM/NOPB
ADC0809CCV/NOPB	ADC0834CCWMX/NOPB	DS14C88MX/NOPB	MF10CCWMX/NOPB
ADC0809CCVX/NOPB	ADC0838CCWM/NOPB	DS14C89AM/NOPB	MM145453V/NOPB
ADC0831CCN/NOPB	ADC0838CCWMX/NOPB	DS14C89AMX/NOPB	MM145453VX/NOPB
ADC0831CCWM/NOPB	ADC0838CIWM/NOPB	DS14C89AN/NOPB	MM5452V/NOPB
ADC0831CCWMX/NOPB	ADC0838CIWMX/NOPB	LMC7660IM	MM5452VX/NOPB
ADC0832CCN/NOPB	ADC0848BCV/NOPB	LMC7660IM/NOPB	MM5453V/NOPB
ADC0832CCWM/NOPB	ADC0848BCVX/NOPB	LMC7660IMX	MM5453VX/NOPB
ADC0832CCWMX/NOPB	ADC0848CCV/NOPB	LMC7660IMX/NOPB	MM5483V/NOPB

Qualification Report

SFAB Process Qualification MGCMOS - SSGADC0838CIS - ADC0838CCWM/NOPB

Approve Date 26-Sep-2017

Product Attributes

Attributes	Qual Device: ADC0838CCWM/NOPB	Qual Device: PADC0838CCN/NOPB
Assembly Site	TIEM	TIEM
Package Family	SOIC	SOIC
Flammability Rating	UL 94 V-0	UL 94 V-0
Wafer Fab Supplier	SFAB	SFAB
Wafer Process	MGCMOS	MGCMOS

- Qual Devices PADC0838CCN/NOPB is qualified at LEVEL1-NACG
- Qual Device ADC0838CCWM/NOPB is qualified at LEVEL3-260CG

Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: ADC0838CCWM/NOPB	Qual Device: PADC0838CCN/NOPB
AC	Autoclave 121C	96 Hours	3/231/0	-
ED	Electrical Characterization	Per Datasheet Parameters	Pass	-
ELFR	Early Life Failure Rate, 125C	48 Hours	-	3/2400/0
HAST	Biased HAST, 130C/85%RH	96 Hours	3/231/0	-
HBM	ESD - HBM	2500 V	3/9/0	-
CDM	ESD - CDM	1500 V	3/9/0	-
HTOL	Life Test, 125C	1000 Hours	-	3/231/0
HTSL	High Temp. Storage Bake, 150C	1000 Hours	3/231/0	-
LU	Latch-up	(per JESD78)	3/18/0	-
MQ	Manufacturability (Assembly)	(per mfg. Site specification)	Pass	-
MQ	Manufacturability (Wafer Fab)	(per mfg. Site specification)	Pass	-
PC	Preconditioning	Level 3-260C	3/720/0	-
TC	Temperature Cycle, -65/150C	500 Cycles	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 -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