PCN# 20200728003.1
Die Coating material change for select devices
Change Notification / Sample Request

Date: July 31, 2020
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.

Texas Instruments requires acknowledgement of 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 samples or additional data are required, requests must be received within **30 days** of this notification.

The changes discussed within this PCN will not take effect any earlier than the proposed first ship date on Page 3 of this notification, unless customer agreement has been reached on an earlier implementation of the change.

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 or to provide acknowledgement of this PCN, you may contact your local Field Sales Representative or the PCN Team (PCN_ww_admin_team@list.ti.com). For sample requests or sample related questions, contact your local Field Sales Representative.

Sincerely,

PCN Team
SC Business Services

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
LM4040CIM3-2.5/NOPB	null
LM4040BIM3-2.5/NOPB	null
LM4040AIM3-2.5/NOPB	null
LM4040CIM3X-2.5/NOPB	null
LM4040DIM3-2.5/NOPB	null
LM4040DIM3X-2.5/NOPB	null
LM4040EIM3X-2.5/NOPB	null
LM4040AIM3X-2.5/NOPB	null
LM4040BIM3X-2.5/NOPB	null

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

PCN Number:	20200728003.1		PCN Date:	Jul 31, 2020
Title:	Die Coating material change for Select Devices			
Customer Contact:	PCN Manager		Dept:	Quality Services
Proposed 1st Ship Date:	Oct 31, 2020		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 notification is to announce the change to the Die Coating material for the selected devices listed in "Product Affected" section.

Change From	Change To
NONE	**POLYIMIDE**

Qual details are provided in the Qual Data Section.

Reason for Change:

Manufacturing Enhancement

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

None

Changes to product identification resulting from this PCN:

None

Product Affected:

LM4040AIM3-2.5	LM4040CEM3-2.5/E7001881	LM4040DIM3-2.5	
LM4040AIM3-2.5/NOPB	LM4040CEM3-2.5/NOPB	LM4040DIM3-2.5/NOPB	
LM4040AIM3X-2.5	LM4040CIM3-2.5	LM4040DIM3X-2.5	
LM4040AIM3X-2.5/NOPB	LM4040CIM3-2.5/NOPB	LM4040DIM3X-2.5/NOPB	
LM4040BIM3-2.5	LM4040CIM3X-2.5	LM4040EEM3-2.5/NOPB	
LM4040BIM3-2.5/NOPB	LM4040CIM3X-2.5/NOPB	LM4040EIM3-2.5	
LM4040BIM3X-2.5	LM4040DEM3-2.5/NOPB	LM4040EIM3-2.5/NOPB	
LM4040BIM3X-2.5/NOPB	LM4040DEM3-2.5/S4000169	LM4040EIM3X-2.5	
LM4040CEM3-2.5	LM4040DEM3X-2.5/NOPB	LM4040EIM3X-2.5/NOPB	

Qualification Report

Approve Date 20-July-2020

Qualification Results

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

Type	Test Name / Condition	Duration	Qual Vehicle: LM4040AIM3-2.5 (GFAB)	QBS Product Reference: LM4040AIM3-2.5 (SFAB)	QBS Product Reference: LM4040AIM3-2.5 CTRL (GFAB)	QBS Product Reference: LM4040QCEM3-5.0/NOPB
AC	Autoclave 121C	96 Hours	1/77/0	1/77/0	1/77/0	3/231/0
ED	Electrical Characterization	-	1/30/0	1/30/0	1/30/0	-
ELFR	Early Life Failure Rate, 140C	48 Hours	-	-	-	3/2400/0
CDM	ESD - CDM	750 V	-	-	-	1/3/0
CDM	ESD - CDM	1000 V	-	-	-	1/3/0
HBM	ESD – HBM	2000 V	-	-	-	1/3/0
HAST	Biased HAST, 130C/85%RH	96 Hours	-	-	-	3/231/0
HTOL	Life Test, 125C	1000 Hours	1/77/0	1/77/0	1/77/0	3/231/0
HTSL	High Temp Storage Bake 150C	1000 Hours	-	-	-	1/45//0
LU	Latch-up	Per JESD78, 25C	-	-	-	1/6/0
	Latch-up	Per JESD78, 125C				1/6/0
MQ	Manufacturability (Assembly)	(per mfg. Site specification)	1/Pass	1/Pass	1/Pass	-
MSL	Moisture Sensitivity	-	1/12/0	1/12/0	1/12/0	-
TC	Temperature Cycle, -65/150C	500 Cycles	1/77/0	1/77/0	1/77/0	3/231/0
WBP	Bond Pull	Post/T/C	-	-	-	1/5/0
YLD	FTY and Bin Summary	-	1/Pass	1/Pass	1/Pass	-

- QBS: Qual By Similarity
- Qual Device LM4040AIM3-2.5 is qualified at LEVEL1-260C

- 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
WW PCN Team	PCN_ww_admin_team@list.ti.com

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