PCN Number:	20190917001.1	**PCN Date:**	Sep 18, 2019
Title:	Die Coating material change for Select Devices		
Customer Contact:	PCN Manager	**Dept:**	Quality Services
Proposed 1st Ship Date:	Dec 18, 2019	**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.

Die coating material differences (on top of top thick copper metal layer) are noted below:

Change From	Change To
NONE	**POLYIMIDE**
Die Revision: A	**Die Revision: D***

*No design change. Addition of Polyimide die coating only.

Qual details are provided in the Qual Data Section.

Reason for Change:

Quality Improvement

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

None

Changes to product identification resulting from this PCN:

The Die Rev designator will change as shown in the table and sample label below:

Current	**New**
Die Rev [2P]	**Die Rev [2P]**
A	**D**

Sample product shipping label (not actual product label)

Product Affected Group:

UCC27201ADPRR	UCC27201ADPRT	UCC27201ADRCR	UCC27201ADRCT

Qualification Report

UCC27201A die with Polyimide coating (PI)
Approve Date 12-Jun-2019

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

Type	Test Name / Condition	Duration	Qual Device: UCC27201ADPR	Qual Device: UCC27201ADRC	QBS Product Reference: UCC27201ADPR	QBS Product Reference: UCC27201ADRCT	QBS Process Reference: UCC27201AQDDARQ1	QBS Process & Package Reference: UCC27201AQDMKRQ1	QBS Package Reference: TPA5050RSA	QBS Package Reference: TPS61020DRC_CU_WIRE
AC	Autoclave 121C	96 Hours	-	-	3/231/0	3/231/0	3/231/0	3/231/0	-	3/231/0
CDM	ESD - CDM - Q100	1500 Volts	-	-	-	-	1/3/0	1/3/0	-	-
CDM	ESD CDM	+/- 250, 500V	-	-	1/3/0	1/3/0	-	-	-	-
DS	Die Shear	--	1/Pass	1/Pass	1/Pass	1/Pass	1/Pass	1/Pass	1/10/0	3/30/0
ED	Electrical Characterization	Per Datasheet Parameters	-	-	1/Pass	1/Pass	3/90/0	3/90/0	-	-
ELFR	Early Life Failure Rate, 125C	48 Hours	-	-	-	-	3/2400/0	-	-	-
HAST	Biased HAST, 130C/85%RH	96 Hours	-	-	-	-	3/231/0	3/231/0	1/80/0	-
HBM	ESD - HBM - Q100	1000 Volts	-	-	-	-	1/3/0	1/3/0	-	-
HTOL	Life Test, 125C	1000 Hours	-	-	-	-	3/231/0	1/77/0	-	-
HTOL	Life Test, 140C	480 Hours	-	-	-	-	-	-	1/116/0	-
HTSL	High Temp Storage Bake 150C	1000 Hours	-	-	-	-	1/45/0	1/77/0	-	-
HTSL	High Temp Storage Bake 170C	420 Hours	-	-	-	-	-	-	-	3/231/0
LU	Latch-up	(per AEC-Q100-004)	-	-	-	-	1/6/0	1/6/0	-	-

Type	Test Name / Condition	Duration	Qual Device: UCC27201ADPR	Qual Device: UCC27201ADRC	QBS Product Reference: UCC27201ADPR	QBS Product Reference: UCC27201ADRCT	QBS Process Reference: UCC27201AQDDARQ1	QBS Process & Package Reference: UCC27201AQDMKRQ1	QBS Package Reference: TPA5050RSA	QBS Package Reference: TPS61020DRC_CU_WIRE
PD	Physical Dimensions	--	-	-	-	-	-	3/30/0	1/5/0	3/15/0
PTC	Power Temperature Cycle, -40/125C	1000 Cycles	-	-	-	-	1/45/0	-	-	-
TC	Temperature Cycle, -65/150C	1000 Cycles	-	-	-	-	-	-	-	3/231/0
TC	Temperature Cycle, -65/150C	500 Cycles	-	-	3/231/0	3/231/0	3/231/0	3/231/0	-	3/261/0
TC-BP	Post TC Bond Pull	Wires	-	-	-	-	1/30/0	3/15/0	-	-
TS	Thermal Shock - 65/150C	1000 Cycles	-	-	-	-	-	-	-	3/231/0
TS	Thermal Shock - 65/150C	500 Cycles	-	-	-	-	-	-	-	3/231/0
WBP	Bond Pull	Wires	1/Pass	1/Pass	1/Pass	1/Pass	1/40/0	3/90/0	1/76/0	3/228/0
WBS	Bond Shear	Wires	1/Pass	1/Pass	1/Pass	1/Pass	1/40/0	3/90/0	1/76/0	3/228/0
YLD	Yield Evaluation	(per mfg. Site specification)	1/Pass	1/Pass	-	-	-	-	1/Pass	3/Pass

- 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

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