PCN Number: 2017		70727000 <mark>A</mark>		PCN I	Date	:	Jan 31, 2018			
Title: Transfer of select C				CS150 devices from GFAB to MAINEFAB Wafer Fab site						
Customer	Contact:		PCN	<u>l Manager</u>			Dept:			Quality Services
Proposed 1 st Ship Date:			Nov 1, 2017			Estimated Sample Availability:			е	Date provided at sample request.
Change Type:										
Assem	bly Site		Assembly Process					Ass	sembly Materials	
Design	า		☐ Electrical Specification					Me	chanical Specification	
Test Site				Packing/Shipping/Labeling					Test Process	
■ Wafer Bump Site				Wafer Bump Material					Wafer Bump Process	
			\boxtimes	Wafer Fab Materials				\boxtimes	Wa	fer Fab Process
		•		Part number change					•	

PCN Details

Description of Change:

The purpose of **PCN Revision A** is to announce the <u>retraction</u> of select devices. Retracted devices are identified with a strikethrough and are highlighted in yellow in the Product Affected Section. These devices will not transfer to MAINEFAB as they are impacted by the Amkor P1 assembly discontinuance communicated in PCN 20171214001, sent December 19, 2017.

This change notification is to announce the transfer of select CS150 devices from GFAB to the MAINEFAB Wafer Fab site for the selected devices listed in the "Product Affected" section of this document.

		Current		New				
Chip Site	Process	Wafer Diameter	Interlayer Dielectric	Chip Site	Process	Wafer Diameter	Interlayer Dielectric	
GFAB6	CS150	150mm	TEOS Base ILD TEOS SOG/ SOG etchback	MAINEFAB*	CS150	200mm	TEOS CMP	
GFAB8	CS150	200mm	TEOS Base ILD TEOS SOG/ SOG etchback	MAINEFAB*	CS150	200mm	TEOS CMP	
Chip Site	Process	Wafer Diameter	Contact Plug	Chip Site	Process	Wafer Diameter	Contact Plug	
GFAB6	CS150	150mm	Part of metallization	MAINEFAB*	CS150	200mm	W plug	
GFAB8	CS150	200mm	Part of metallization	MAINEFAB*	CS150	200mm	W plug	

^{*}Interlayer Dielectric (ILD) and Contact plug processes will be upgraded to MaineFab's standardized Chemical-Mechanical Planarization (CMP) ILD and Tungsten (W) Contact plug processes.

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:

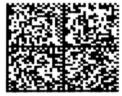
Current Chip Site	Chip Site Origin Code (20L)	Chip Site Country Code (21L)	Chip Site City
GFAB6	GF6	GBR	Greenock
GFAB8	GF8	GBR	Greenock

New Fab Site:

MATNEFAR	CUA	USA	South Portland
New Chin Site	Chin Site Origin Code (201)	Chip Site Country Code (21L)	Chin Site City

Sample product shipping label (not actual product label)





(1P) \$N74L\$07N\$R (Q) 2000 (D) 0336 (31T) LOT: 3959047MLA (4W) TKY (1T) 7523483512 (P) (2P) REV: (V) 0033317 (20L) CSO: SHE (21L) CCO:USA (22L) ASO:MLA (23L) ACO: MYS

		ct				

ADC12038CIWM/NOPB	ADC12130CIWMX/NOPB	ADC12138CIWM/NOPB	COPCG-AMD/V-MPC/MPGE725
ADC12038CIWMX/NOPB	ADC12138CIMSA/NOPB	ADC12138CIWMX/NOPB	COPCG-AQQ/V-MPC/MPGE724
ADC12130CIWM/NOPB	ADC12138CIMSAX/NOPB		

Qualification Report CS150 Technology Qualification - MFAB

Approve Date 21-July-2017

Product Attributes

Attributes	Qual Device: ADC12138CIMSA/NOPB
Assembly Site	AMKOR AP1
Package Family	SSOP
Wafer Fab Supplier	MAINEFAB
Wafer Fab Process	CS150

⁻ QBS: Qual By Similarity

⁻ Qual Device ADC12138CIMSA/NOPB is qualified at LEVEL3-260C

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

Туре	Test Name / Condition	Duration	Qual Device: ADC12138CIMSA/NOPB
AC	Autoclave 121C	96 Hours	3/231/0
HAST	Biased HAST, 130C/85%RH	96 Hours	3/231/0
TC	Temperature Cycle, -65/150C	500 Cycles	3/231/0
ELFR	Early Life Failure Rate, 125C	48HRS	3/2400/0
HTOL	Life Test, 125C	1000 Hours	3/231/0
HTSL	High Temp Storage Bake 150C	1000 Hours	3/231/0
НВМ	ESD - HBM - Q100	1500 V	3/9/0
CDM	ESD - CDM - Q100	500 V	3/9/0
LU	Latch-up	(Per JESD78)	3/18/0
ED	Electrical Characterization	Per Datasheet Parameters	3/90/0
MQ	Manufacturability (Assembly)	(per mfg. Site specification)	Pass
MQ	Manufacturability (Wafer Fab)	(per mfg. Site specification)	Pass

⁻ Preconditioning was performed for Autoclave, Unbiased HAST, THB/Biased HAST, Temperature Cycle, Thermal Shock, and HTSL, as applicable

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

⁻ 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 0.7 eV: 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