



AllianceMemoryInc.

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Product Change Notification (PCN)

Date: November 15th, 2016

PCN TRACKING NO:PCN-111516102

Subject: Product Change Notification (PCN) for Alliance SDRAM's (256M SDRAM)

Description of Change:	Product will only be offered in a new Die Revision (A die)
Reason for Change	Product revision to provide continuous support to Alliance's customers
Traceability, Guidelines (lot, date code, markings, shipment date)	Traceable through marketing part #
Updated Datasheet Summary of Changes between New and Old part numbers	Part # has been changed and updated datasheets are posted on our website http://www.alliancememory.com/products/s_dram.asp See table 1 Below

Table 1

Density	Organization	Alliance Part Number	Alliance New Part Number (A die)
256M	8M x 32	AS4C8M32S-6BIN	AS4C8M32SA-6BIN
256M	8M x 32	AS4C8M32S-7BCN	AS4C8M32SA-7BCN

NEW Additional Options

256M	8M x 32		AS4C8M32SA-6BCN AS4C8M32SA-7BIN
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Last Time Buy Date:	December 31 st 2016
Last Time Ship Date:	June 30 th 2017
Sample Available Date	December 31 st 2016
PCN Effective Date:	November 15 th 2016

Any orders after December 31, 2016 are Non-cancelable / Non-Returnable and cannot be changed.



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Dear Valued Customer:

This letter provides End-of-Life (EOL) notice of SDRAM products with an 256M density. These products will move to new 'A' die revision in Q1-2017.

The delivery deadline is June 30th, 2017 with last time buy (LTB) deadline on December 31st, 2016. Please note that the standard shipment dates will apply in general and extended delivery dates must be pre-arranged and accepted in writing by Alliance Memory Management.

Please see the below comparison between the current die rev and the new A die. Samples will be available on December 31st, 2016.

Please contact your local Alliance Memory representative if you have any questions regarding this information.

Yours sincerely,

A handwritten signature in blue ink, appearing to read 'David Bagby', written over a horizontal line.

David Bagby

President

Alliance Memory Inc.

Comparison between

AS4C8M32S-6BIN/7BCN and AS4C8M32SA-6BIN/7BCN – 256M SDRAM

Part Number&result Parameter	AS4C8M32S-6BIN AS4C8M32S-7BCN	AS4C8M32SA-6BIN AS4C8M32SA-7BCN	Comparison Result
Wafer Process	72nm	63nm	Difference
Power Supply	3.3V ± 0.3V	3.3V ± 0.3V	Same
Typical Power Dissipation of Normal Operation	Omit.(See datasheet)	Omit.(See datasheet)	AS4C8M32SA has better power dissipation than AS4C8M32S.
Operating Temperature	Commercial (0°C to 70°C) Industrial (-40 ~ 85°C)	Commercial (0°C to 70°C) Industrial (-40 ~ 85°C)	Same
Max Operating Speed	166MHz 143MHz	166MHz 143MHz	Same
Interface (Input/Output) Capacitance	Input capacitance,Ci: 4.0– 10 pF Input/output capacitance ;Ci/o: 4– 6.5 pF	Input capacitance,Ci: 3.5– 5.5 pF Input/output capacitance ;Ci/o: 4– 6 pF	Difference
Interface Definition	Omit.(See datasheet)	Omit.(See datasheet)	Same. They are pin to pin.
Interface Material	Pb and Halogen Free	Pb and Halogen Free	Same
Timing Parameters	Omit.(See datasheet)	Omit.(See datasheet)	AS4C8M32SA is equal to or less than AS4C8M32S
Timing Diagram & Command	Omit.(See datasheet)	Omit.(See datasheet)	Same
ESD Level	JEDEC: 2KV HBM	JEDEC: 2KV HBM	Same
Capacity	256M	256M	Same
Package	90-ball 8 x 13 x 1.4mm FBGA package	90-ball 8 x 13 x 1.2mm FBGA package	Pin to Pin compatible
Truth Table	Omit.(See datasheet)	Omit.(See datasheet)	same
Supply Time			AS4C8M32SA will replace AS4C8M32S.