



## DDR4 Module SPD changes to align with JEDEC and provide additional capabilities.

PCN: 33421

Published: 2019-11-12

**Type:** Manufacturing Process Change, SPD Revision

**Description:** Bytes changing to further align with latest JEDEC specifications and provide support for additional operating speeds. No changes are being made to existing speedbins.

x8, x16 based -3G2, 3200 22-22-22			
Byte	Current Value	Changing to	Notes
22	0x2B (CL23,24,26,28)	0x2F (CL23-26, 28)	Addition of CL25 which provides additional support for downbinning to the following: CL25@2933 MT/s in DBI mode. (x4 based DIMMs do not support DBI mode.)

x8, x16 based -2G9, 2933 21-21-21			
Byte	Current Value	Changing to	Note
22	0x09 (CL23, 26)	0x0D (CL23,25-26)	Addition of CL25 which provides additional support for the following: CL25@2933 in DBI mode. (x4 based DIMMs do not support DBI mode.)

-3S2, 3200 26-22-22			
Byte	Current Value	Changing to	Notes
20	0x80 (CL14)	0xC0 (CL13-14)	Addition of CL13 which provides additional support for downbinning to the following: CL13@1600 MT/s
22	0x2A (CL24,26,28)	0x2E (CL24-26,28)	Addition of CL25 which provides additional support for downbinning to the following: CL25@2933 MT/s

-2S6, 2666 22-19-19				
Byte	Current Value		Changing to	Notes
25	tRCD	0x72 (14.25ns)	0x71 (14.06ns)	Change to 14.06ns tRCD and tRP and 46.06 tRC which provides additional support for downbinning to 2400 MT/s.
122		0x00 (14.25ns)	0xBF (14.06ns)	
26	tRP	0x72 (14.25ns)	0x71 (14.06ns)	
121		0x00 (14.25ns)	0xBF (14.06ns)	
29	tRC	0x72 (46.25ns)	0x71 (46.06ns)	
120		0x00 (46.25ns)	0xBF (46.06ns)	

Data Sheets have been updated to reflect specifications change. These can be found on Micron's website at [www.micron.com](http://www.micron.com).

\*\*For additional questions, please contact your Sales Representative.

**Reason:** Better Align With Industry Standard, Improved Product Quality and Reliability

**Product Affected:** Modules with following speed bins: Speed bin -3S2, -2S6 Speed bin -3G2, -2G9 with CONFIGURATION\_WIDTH = X8 and X16

**Affected Micron Part Number**  
Module

**Recommended Replacement**

**Customer Part Number**

MTA144ASQ16G72LSZ-2S6E1

MTA144ASQ16G72LSZ-2S6G1

MTA144ASQ16G72LSZ-3S2E1

MTA144ASQ16G72PSZ-2S6E1

MTA144ASQ16G72PSZ-2S6G1

MTA144ASQ16G72PSZ-3S2E1		
MTA144ASQ32G72LSZ-3S2B1		
MTA144ASQ32G72PSZ-3S2B1		
MTA16ATF2G64AZ-3G2E1		
MTA16ATF2G64AZ-3G2J1		
<b>MTA16ATF2G64HZ-3G2E1</b>		?
MTA16ATF2G64HZ-3G2J1		
MTA16ATF4G64AZ-3G2B1		
MTA16ATF4G64HZ-3G2B1		
MTA16ATF4G64HZ-3G2B2		
MTA18ADF2G72AZ-3G2E1		
MTA18ADF2G72PDZ-3G2E1		
MTA18ADF4G72AZ-3G2B1		
MTA18ASF1G72PDZ-3G2F2		
MTA18ASF2G72PDZ-2G9E1		
MTA18ASF2G72PDZ-2G9J1		
MTA18ASF2G72PDZ-2G9J3		
<b>MTA18ASF2G72PDZ-3G2E1</b>		?
MTA18ASF2G72PDZ-3G2J3		
MTA18ASF2G72PKTZ-3G2E1		
<b>MTA18ASF4G72AZ-3G2B1</b>		?
MTA18ASF4G72PDZ-2G9B1		
MTA18ASF4G72PDZ-2G9B2		
MTA18ASF4G72PDZ-3G2B1		
MTA18ASF4G72PDZ-3G2B2		
MTA4ATF1G64AZ-3G2B1		
MTA4ATF1G64HZ-3G2B1		
MTA4ATF51264AZ-3G2E1		
MTA4ATF51264AZ-3G2J1		
MTA4ATF51264HZ-3G2E1		
MTA4ATF51264HZ-3G2J1		
MTA72ASS16G72LSZ-3S2B1		
MTA72ASS16G72PSZ-3S2B1		
MTA72ASS8G72PSZ-2S6E1		
MTA72ASS8G72PSZ-2S6G1		
MTA72ASS8G72PSZ-3S2E1		
MTA8ATF1G64AZ-3G2E1		
MTA8ATF1G64AZ-3G2J1		
MTA8ATF1G64HZ-3G2E1		
MTA8ATF1G64HZ-3G2J1		
MTA8ATF2G64AZ-3G2B1		
MTA8ATF2G64HZ-3G2B1		
MTA9ADF1G72AKIZ-3G2E1		
<b>MTA9ADF1G72AZ-3G2E1</b>		?
<b>MTA9ADF1G72PKIZ-3G2E1</b>		?
MTA9ADF1G72PZ-3G2E1		
MTA9ASF1G72PKIZ-3G2E1		
MTA9ASF1G72PZ-2G9E1		
MTA9ASF1G72PZ-2G9E6		
MTA9ASF1G72PZ-2G9J3		
MTA9ASF1G72PZ-3G2E1		
MTA9ASF1G72PZ-3G2E2		
MTA9ASF1G72PZ-3G2J3		
MTA9ASF2G72AZ-3G2B1		
MTA9ASF2G72PZ-3G2B1		

\*Materials that have been ordered are in **bold**.

**Method of Identification:** Read SPD bytes as indicated in Description of Change Field above or read work week encoded on label as exemplified in picture below. Product built on or after work week **07** of 2020 will have the SPD changes indicated in this PCN. Label picture is only an example.



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**Micron Sites Affected:** All Sites

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**Qualification Plan:** Changes have been reviewed. Further testing was determined to be unnecessary. Manufacturing test flows already accommodate the changes indicated.

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**Sample Available:** 2019-11-12

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**Qual Data Available:** 2019-11-12

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**Product Ship Date:** 2020-02-10

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NOTE: Per JEDEC Standard JESD46-C Section 3.2.3; lack of acknowledgment of this PCN within 30 days constitutes acceptance of change.

**Micron Confidential and Proprietary Information**

## Attachments

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There are no attachments on this PCN