ONFI Technical Errata

Errata ID	**012**
Affected Spec Ver.	**ONFI 4.0**
Corrected Spec Ver.	

Submission info

Name	Company	Date
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The erratum changes the tCR2 parameter minimum value for the Read ID command sequence. The tCR2(min) value is 150ns for the Read ID sequence only. The tCR2(min) value remains 100ns for all other cases.

Description of the specification change

Modify Section 4.18.1 Tables 83 and 84 shown below:

Parameter	Mode 0		Mode 1		Mode 2		Unit
	100		50		35		ns
	Min	Max	Min	Max	Min	Max	
tCR	10	—	10	—	10	—	ns
tCR2	100	—	100	—	100	—	ns
tCR2 (Read ID) [3]	150	—	150	—	150	—	ns

NOTE:
1. To easily support EDO capable devices, tCHZ and tRHZ maximums are higher in modes 1, 2, and 3 than typically necessary for a non-EDO capable device.
2. If the reset is invoked using a Reset (FFh) command then the EZ NAND device has 250 ms to complete the reset operation regardless of the timing mode. If the reset is invoked using Reset LUN (FAh) command then the values are as shown.
3. tCR2(min) is 150ns for Read ID sequence only. For all other command sequences tCR2(min) requirement is 100ns.

Table 1 SDR Timing Modes 0, 1, and 2

Parameter	Mode 3		Mode 4 (EDO capable)		Mode 5 (EDO capable)		Unit
	30		25		20		ns
	Min	Max	Min	Max	Min	Max	
tCR	10	—	10	—	10	—	ns
tCR2	100	—	100	—	100	—	ns
tCR2 (Read ID) [3]	150	—	150	—	150	—	ns

NOTE:
1. To easily support EDO capable devices, tCHZ and tRHZ maximums are higher in modes 1, 2, and 3 than typically necessary for a non-EDO capable device.
2. If the reset is invoked using a Reset (FFh) command then the EZ NAND device has 250 ms to complete the reset operation regardless of the timing mode. If the reset is invoked using Reset LUN (FAh) command then the values are as shown.
3. tCR2(min) is 150ns for Read ID sequence only. For all other command sequences tCR2(min) requirement is 100ns.

Table 2 SDR Timing Modes 3, 4, and 5

Modify Section 4.18.3 Table 86 shown below:

Constant Timing Parameter Values			
	Min	Max	Unit
tCR	10	—	ns
tCR2	100	—	ns
tCR2 (Read ID)[1]	150	—	ns
NOTE: 4. tCR2(min) is 150ns for Read ID sequence only. For all other command sequences tCR2(min) requirement is 100ns.			

Table 3 NV-DDR2 / NV-DDR3 Timing Parameter Values: Command and Address

Disposition log

5/6/2015	Erratum captured.
5/21/2015	Fixed error referencing incorrect table. Should be Table 86 and was referencing Table 88

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