ONFI Technical Errata

Errata ID	**004**
Affected Spec Ver.	**ONFI 3.0, 3.1, 3.2, 4.0**
Corrected Spec Ver.	

Submission info

Name	Company	Date
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The erratum separates test load conditions for output slew rate and AC timing parameters. The current test load for AC timing parameter stays at 50ohm to Vtt, and the test load for output slew rate is changed to 5pf to Vss. This aligns with current industry specification of output slew rate test load.

Description of the specification change

Modify Section 4.9 Table 40 shown below:

Parameter	NV-DDR	NV-DDR2 single-ended	NV-DDR2 differential	NV-DDR3 single-ended	NV-DDR3 differential
VOL(DC)	0.4 * VccQ	—	—	—	—
VOH(DC)	0.6 * VccQ	—	—	—	—
VOL(AC)	0.3 * VccQ	Vtt – (VccQ * 0.15)	—	Vtt – (VccQ * 0.10)	—
VOH(AC)	0.7 * VccQ	Vtt + (VccQ * 0.15)	—	Vtt + (VccQ * 0.10)	—
VOLdiff(AC)			-0.3 * VccQ		-0.2 * VccQ
VOHdiff(AC)			0.3 * VccQ		0.2 * VccQ
Positive output transition	VOL (DC) to VOH (AC)	VOL (AC) to VOH (AC)	VOLdiff(AC) to VOHdiff(AC)	VOL (AC) to VOH (AC)	VOLdiff(AC) to VOHdiff(AC)
Negative output transition	VOH (DC) to VOL (AC)	VOH (AC) to VOL (AC)	VOHdiff(AC) to VOLdiff(AC)	VOH (AC) to VOL (AC)	VOHdiff(AC) to VOLdiff(AC)
tRISE[1]	Time during rising edge from VOL(DC) to VOH(AC)	Time during rising edge from VOL(AC) to VOH(AC)	—	Time during rising edge from VOL(AC) to VOH(AC)	—
tFALL[1]	Time during falling edge from VOH(DC) to VOL(AC)	Time during falling edge from VOH(AC) to VOL(AC)	—	Time during falling edge from VOH(AC) to VOL(AC)	—
tRISEdiff[2]	—	—	Time during rising edge from VOLdiff(AC) to VOHdiff(AC)	—	Time during rising edge from VOLdiff(AC) to VOHdiff(AC)
tFALLdiff[2]	—	—	Time during falling edge from VOHdiff(AC) to VOLdiff(AC)	—	Time during falling edge from VOHdiff(AC) to VOLdiff(AC)
Output slew rate rising edge	[VOH(AC) – VOL(DC)] / tRISE	[VOH(AC) – VOL(AC)] / tRISE	[VOHdiff(AC) – VOLdiff(AC)] / tRISEdiff	[VOH(AC) – VOL(AC)] / tRISE	[VOHdiff(AC) – VOLdiff(AC)] / tRISEdiff
Output slew rate falling edge	[VOH(DC) – VOL(AC)] / tFALL	[VOH(AC) – VOL(AC)] / tFALL	[VOHdiff(AC) – VOLdiff(AC)] / tFALLdiff	[VOH(AC) – VOL(AC)] / tFALL	[VOHdiff(AC) – VOLdiff(AC)] / tFALLdiff
Output reference load	~~Refer to Figure 38~~ 5pf to Vss				

NOTE:
1. Refer to Figure 39 and Figure 40.
2. Refer to Figure 41.

Table 1 Testing Conditions for Output Slew Rate

Disposition log

8/22/2014	Erratum captured.

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