ONFI Technical Errata

Errata ID	**011**
Affected Spec Ver.	**ONFI 2.1**
Corrected Spec Ver.	

Submission info

Name	Company	Date
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Each unit in the Extended Parameter Page is 16 bytes in size. Each of the ECC Information Block structures is only 8 bytes. This means that the second ECC Information Block may or may not be valid. This erratum clarifies that the ECC Information Block is only valid when the Codeword size in byte 1 is non-zero.

Description of the specification technical flaw

Modify section 3.3.1 and 3.3.2 as shown:

3.3.1 Byte 0: Number of bits ECC correctability

This field indicates the number of bits that the host should be able to correct per codeword. The codeword size is reported in byte 1. With this specified amount of error correction by the host, the target shall achieve the block endurance specified in bytes 4-5. When the specified amount of error correction is applied by the host and the block endurance is followed, then the maximum number of bad blocks specified in bytes 2-3 shall not be exceeded by the device. All used bytes in the page shall be protected by ECC including the spare bytes if the ECC requirement reported in byte 0 has a value greater than zero.

When this value is cleared to zero, the target shall return valid data if the ECC Information Block is valid (the Codeword size is non-zero).

3.3.2 Byte 1: Codeword size

The number of bits of ECC correctability specified in byte 0 is based on a particular ECC codeword size. The ECC codeword size is specified in this field as a power of two. The minimum value that shall be reported is 512 bytes (a value of 9).

If a value of 0 is reported then this ECC Information Block is invalid and should not be used.

Disposition log

8/24/2009	Erratum captured.
10/20/2009	Erratum ratified.

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