

**Proposed
Draft**

**Serial ATA
International Organization**

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**Serial ATA Revision 3.1 ECN059
Title : Device Configuration Overlay Correction**

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1 Introduction

1.1 Problem Statement

Device Configuration Overlay (DCO) is a feature set used to disable or enable support of specific features of ATA/ATAPI devices. Within the definition of Serial ATA, DCO has the ability to enable or disable the support for the RECEIVE FPDMA QUEUED and SEND FPDMA QUEUED commands through Word 8 bit 7. When DCO Set Word 8 bit 7 is set to 0, the Serial ATA specification states that Word 77 bit 7 of IDENTIFY DEVICE data shall be set to 0. The problem is that Word 77 bit 7 of IDENTIFY DEVICE data is a reserved bit. Word 77 bit 6 of IDENTIFY DEVICE data is the bit that signals support for the RECEIVE FPDMA QUEUED and SEND FPDMA QUEUED commands. This errata intends to correct the reference to the wrong IDENTIFY DEVICE data bit.

2 Technical Specification Changes

2.1 <Title of section being changed>

[Editor's note: The changes marked in red (and underlined/strikethrough) will be incorporated in section XXX]

<13.4.2> Device Configuration Overlay Set

If bit 6 of word 8 is cleared to zero, then the device shall:

- a) disable support for the NCQ QUEUE MANAGEMENT command;
- b) clear word 77 bit 5 of IDENTIFY DEVICE data to zero; and
- c) if an NCQ QUEUE MANAGEMENT command is issued to the device, the device shall return command aborted.

If bit 6 of word 8 is set to one and bit 0 of word 8 is cleared to zero, then the device shall return command aborted.

If bit 7 of word 8 is cleared to zero, then the device shall:

- a) disable support for RECEIVE FPDMA QUEUED and SEND FPDMA QUEUED
- b) Clear word 77 bit ~~7~~ **6** of IDENTIFY DEVICE data to zero; and
- c) If any RECEIVE FPDMA QUEUED and/or SEND FPDMA QUEUED commands are issued to the device, the device shall return command aborted.