

**Proposed
Draft**

**Serial ATA
International Organization**

**Version 1
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**Serial ATA Revision 3.2 ECN077
Title : Automatic Partial to Slumber No NCQ**

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1 Introduction

1.1 Problem Statement

The SATA 3.2 specification claims that Automatic Partial to Slumber Transitions are only allowed if NCQ is supported by the device. This is not true. This feature has no requirements for NCQ support.

1.2 Solution Summary

Text that indicates that NCQ shall be supported by the device in order to support Host or Device Automatic Partial to Slumber Transitions should be removed

1.3 Background (optional)

This seems to only be a cut a paste error.

2 Technical Specification Changes

2.1 <Title of section being changed>

[editor note: Existing text is black. New text is marked as underlined in blue color. Material to be deleted ~~is red with strikethrough markings.~~]

1.1.1.1.1 <13.7.9.2.9>HOST AUTOMATIC PARTIAL TO SLUMBER TRANSITIONS SUPPORTED bit

If the HOST AUTOMATIC PARTIAL TO SLUMBER TRANSITIONS SUPPORTED bit is set to one, then the device supports host automatic partial to slumber transitions. If the RECEIPT OF HOST INITIATED POWER MANAGEMENT REQUESTS SUPPORTED bit is cleared to zero, then the HOST AUTOMATIC PARTIAL TO SLUMBER TRANSITIONS SUPPORTED bit shall be cleared to zero. ~~This bit shall only be set to one if the NCQ FEATURE SET SUPPORTED bit (see 13.7.9.2.4) is set to one.~~

The device shall tolerate a Partial exit latency up to the max Slumber exit latency. This allows the host to asynchronously transition from Partial to Slumber.

If the RECEIPT OF HOST INITIATED POWER MANAGEMENT REQUESTS SUPPORTED bit is cleared to zero, then the HOST AUTOMATIC PARTIAL TO SLUMBER TRANSITIONS SUPPORTED bit shall be cleared to zero.

IDENTIFY DEVICE data Word ~~77~~76 bit 13 is a copy of this field.

Editor's note: Word 77 was change to Word 76 with ECN075.

1.1.1.1.2 <13.7.9.2.10> DEVICE AUTOMATIC PARTIAL TO SLUMBER TRANSITIONS SUPPORTED bit

If the DEVICE AUTOMATIC PARTIAL TO SLUMBER TRANSITIONS SUPPORTED bit is set to one, then the device supports device automatic partial to slumber transitions and may asynchronously transition from Partial to Slumber when enabled. If the DEVICE AUTOMATIC PARTIAL TO SLUMBER TRANSITIONS SUPPORTED bit is cleared to zero (i.e., device initiating interface power management is not supported), then the DEVICE AUTOMATIC PARTIAL TO SLUMBER TRANSITIONS SUPPORTED bit shall be cleared to zero. ~~This bit shall only be set to one if the NCQ FEATURE SET SUPPORTED bit (see 13.7.9.2.4) is set to one.~~

If the DEVICE INITIATED POWER MANAGEMENT SUPPORTED (see 13.7.9.2.17) bit is cleared to zero, then the DEVICE AUTOMATIC PARTIAL TO SLUMBER TRANSITIONS SUPPORTED bit shall be cleared to zero.

IDENTIFY DEVICE data Word ~~77~~76 bit 14 is a copy of this field.

Editor's note: Word 77 was change to Word 76 with ECN075.