Proposed Draft

Serial ATA International Organization

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Title : Bump Correction

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Document History

Version	Date	Comments
0	02/16/07	Initial release. Re-release of previously ratified ECN 025 to log against SATA Revision 2.6.

1 Introduction

Signal cable receptacle connector “bump” profile (reference figure 30 – section A-A). The current dimensional control of the bump is 0.35+/-0.05mm. A worse case tolerance study of the fit between the cable receptacle connector and either Host or Device Plug yields a line to line condition (no interference of the bump to the recess in the plug).

The same conditions exist for the Power cable receptacle connector (reference figure 38, section A-A) section A-A label is missing.

The current dimensional controls make it difficult to improve cable receptacle connector retention by increasing the profile height of the “bump”.

2 Technical Specification Changes

2.1 Signal cable receptacle connector

[**Editor's Note:** The changes marked in red (and underlined/strikethrough) will be incorporated in sections 6.1.4]

In order to maintain compatibility with existing qualified cable connectors, the following changes are proposed: (applies to both figure 30)

1) Remove the "bump" dimension of 0.35+/-0.05mm
2) Re-dimension the "bump" from the opposite wall of the connector. The new dimension will be the result of subtracting the "bump" size from the width of the connector opening (1.40 - 0.35 = 1.05mm)
3) The tolerance for the 1.05mm dimension will be +0.03/-0.13mm.

This will allow the "bump" profile height to run from 0.24-0.56mm & worse case interference of "bump" to plug "recess" of 0.10mm min.

There is NO change required for qualified cable connectors and NO change to the Mechanical Specifications for non-latching cable retention.

2.2 Power cable receptacle connector

[**Editor's Note:** The changes marked in red (and underlined/strikethrough) will be incorporated in sections 6.1.7]

Apply the same changes suggested above in to Figure 38.