

**Proposed
Draft**

**Serial ATA
International Organization**

**Version 0
February 16, 2007**

**Serial ATA Revision 2.6 ECN # 002
Title : Bump Correction**

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1 Introduction

Signal cable receptacle connector “bump” profile (reference figure 30 – section A-A). The current dimensional control of the bump is 0.35 ± 0.05 mm. 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 ($1.40 - 0.35 = \underline{1.05\text{mm}}$)
- 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.