



Serial ATA Working Group

Date: February 11, 2003
 To: Pete McLean, Editor INCITS T13 technical committee
 RE: Serial ATA 1.0 materials transfer

Pete,

It is my understanding that INCITS has received all of the copyright release forms enabling transfer of the Serial ATA 1.0 materials to the T13 committee.

Attached please find a MS-Word document version of the Serial ATA 1.0a specification for your use. This specification incorporates all the ratified errata and refinements to the original 1.0 version of the specification, and it represents the latest state of the 1.0 spec.

In addition, for your reference attached please find a pre-ratified version of errata 41. This errata has been approved by the Serial ATA Phy technical committee for inclusion in the specification, but since it has not satisfied its 30-day industry comment period it was not incorporated in version 1.0a of the spec. As soon as the 30-day comment period is satisfied, I will notify you of its disposition.

Several specmanship issues with the 1.0a version of the specification have recently been brought to my attention. I thought I would enumerate the latest known issues in the hope that the T13 committee can make these minor corrections as part of their editing work.

- 1) The OOB signal tolerances for COMRESET and COMWAKE intersect. The COMRESET/COMINIT detector off duration is specified as $175 \leq x \leq 525$ ns, while the COMWAKE detector off duration is specified as $55 \leq x \leq 175$. These two ranges intersect at the single point of 175ns. In practice, since this measurement is in the continuous domain, it is not feasible to actually have any overlap, but for the sake of proper specmanship it is suggested that the intersection point be eliminated by specifying the ranges as $175 \leq x < 525$ and $55 \leq x < 175$ respectively. This change would require corresponding wording changes in the following sections in order to remain consistent: 6.7.4, 6.7.4.2, 6.7.4.4, Table 11.
- 2) The 880us initialization timeout value referred to in various places in the spec would be better referred to in terms of 32768 Uloob units since the Uloob unit has an allowable tolerance associated with it. Also the 880us value has been subject to some rounding that can make it difficult to correlate back to its origin of 32K Uloob units.
- 3) The naming of word 93 in section 5.2.4.17 could be viewed as confusing and inconsistent with the parallel ATA spec. The value specified for the field is specified correctly, but the name of the Identify Device word should be made consistent.
- 4) The description of the Error field in section 8.5.8 is not consistent with the description of the operation of the FIS described in section 8.5.8.5. The field description in section 8.5.8 is a cut/paste error from the E_Status field. As correctly indicated in section 8.5.8.5, the Error field should be transferred to the shadow register upon reception of the FIS.

In order to help facilitate a smooth transfer of the material to T13, I will be available and will be attending the T13 meetings for the duration of the material integration effort. Feel free to use me as a technical contact to the Serial ATA group if you identify issues that would benefit from our attention.

Best Regards,

Knut Grimsrud
 Intel Corporation