X3T10/95-163 R0

#163

To: X3T10 Membership

Editor: Joseph Chen, Cirrus Logic, Inc chen@cirrus.com

Date: March 7, 1995

Subject: ATA-2 Public Review Comments

==========

The following document contains comments for the ATA-2 Revision K from Cirrus Logic. The comment consists two folds: editorial and technical. With the proper addressing of these issues, I will change my vote to approve of ATA-2 specification.

1. Editorial Comments

a. Page 99, section 9.3, paragraph h). The statement of saving contents of Status register. This statement is confusion because it dose not indicate either in this paragraph or later where does it save to and what does it save for.

b. Page 101, section 9.4, paragraph h). The statement of saving contents of Status register. This statement is confusion because it dose not indicate either in this paragraph or later where does it save to and what does it save for.

2. Technical Comments

a. Page 99, section 9.3, last paragraph of this page. This paragraph states in error condition, the device clears DRQ bit. This is a protocol requirement for error handling. However, it is contradict with the prior specification. The prior specification requires the setting of DRQ bit when error. I would consider this is a serious technical change that may require hardware revision of many silicones.

b. Page 26, section 5.2.10, INTRQ (Device interrupt). There is a paragraph removed from the ATA-1 specification. The removed paragraph has made the ATA-2 interface protocol different from ATA-1. I will be strongly against any interface protocol changes that will make ATA-1 device incompatible with ATA-2.

As it is stated in ATA-2 Abstract, page 3 of the document, the proposed ATA-2 standard shall maintain a high degree of compatibility with the AT Attachment while providing documentation for new capabilities. The ATA-2 shall not deviate from ATA-1 from its protocol. I will vote against the specification due to interface protocol changes.

c. Page 92, section 8.33, Write Same command. This is a killer command that will erase data on the whole drive with one command code. This is a manufacturing/test command that should be executed in individual drive productions. Due to increasing disk virus potential, this command should not be in the specification and should not be implemented.