

# Correction to Serial ATA Signature

To: T13 Technical committee  
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Change History:

R0: 09/30/2004 Initial proposal

## 1 Introduction

The purpose of this proposal is to resolve a discrepancy between ATA/ATAPI-7 and an external (non-T13) Serial ATA specification.

## 2 Background

### 2.1 Original signature definition

In 2002, T13 was asked to reserve two signatures for serial ata.

This was first put into ATA/ATAPI-7 (d1532v1r1: Aug 28, 2002) as simply:

5.14 Signature and persistence  
(new paragraph at the end of the section):

“Signature values LBA Mid = 3Ch / LBA High = C3h and LBA Mid = 69h / LBA = 96h are reserved for Serial ATA.”

### 2.2 Current definition in ATA/ATAPI-7

But this was changed in ATA/ATAPI-7 (d1532v1r1: Feb. 19, 2003)

Note: there are no indications of the reason for the change within any T13 documents of

- 1) there is no 'proposal' document
- 2) there are no notes in any Plenary official minutes
- 3) this probably came about during a change-bar review and was discussed and agreed to in real-time.

### 5.15.3 Reserved Signatures for Serial ATA Working Groups

The following signatures are Reserved. The use of this signature is not defined by this standard.

For a device not implementing the PACKET command feature set:

Sector Count	01h
LBA Low	01h
LBA Mid	3Ch
LBA High	C3h
Device	00h

For a device implementing the PACKET command feature set:

Interrupt Reason	01h
LBA Low	01h
Byte Count Low	69h
Byte Count High	96h
Device	000x0000b where x equals 0 except when responding to a DEVICE RESET, IDENTIFY DEVICE, or READ SECTOR(S) command. For a DEVICE RESET, IDENTIFY DEVICE, or READ SECTOR(S) command the value of x is not changed from that existing when the command is written to the Command register.

## 2.3 Current definition in non-T13 Serial ATA specifications

In current Serial ATA (external to T13), the signature LBA Mod:High = 69h:96h is used for a non-PACKET device.

There was never any intention that a serial ATA device have a different signature than a serial ATAPI device.

## 3 Proposal

I propose that

- 1) the current ATA/ATAPI specification be changed to the following text, leaving the assignment of usage to the external Serial ATA specification.
- 2) that ATA/ATAPI-7 (d1532v1r4b) also be changed to reflect this.

### 3.1 Proposed text

#### 5.15.3 Reserved Signatures for Serial ATA Working Groups

The following signatures are Reserved. The use of this signature is not defined by this standard.

Signature values LBA Mid = 3Ch / LBA High = C3h and LBA Mid = 69h / LBA = 96h are reserved for Serial ATA.