

# Error with Sil3112A SATA controller and Maxtor 300GB HDD

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*Date:* 03/12/05

To: [linux-kernel@vger.kernel.org](mailto:linux-kernel@vger.kernel.org)

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Hello,

I have an error as described in subject.

I couldn't find a previous report for this kind of error, so maybe you are interested in it.

Motherboard: ASUS TUV4X, BIOS rev. 1005

SATA controller: Silicon Image 3112A, bios rev. 4.2.50

Hard disk: Maxtor Maxtor 6B300S0 (300GB, SATA)

This is the only HDD attached to the controller. It is not the boot device, I have other HDDs on the IDE channels, but I don't think it matters.

Kernels: 2.6.9, 2.6.10, 2.6.11.2

I also patched the 2.6.11.2 by adding this Maxtor disk to the `sata_sil.c` blacklist (once with the `SIL_QUIRK_MOD15WRITE` and once with the `SIL_QUIRK_UDMA5MAX`), but the behaviour did not change.

Problem:

I create a single partition on the hard disk, I format it with `ext2`, I mount it, I begin writing onto the partition. After seconds (or minutes) of copying, I get this error:

```
EXT2-fs error (device sda1): ext2_new_block: Allocating block in system zone
- block = 22413316
```

I have also tried with `ext3`, in this case it prints more error messages:

```
EXT3-fs error (device sda1): ext3_new_block: Allocating block in system zone
- block = 61997060
```

Aborting journal on device sda1.

```
EXT3-fs error (device sda1) in ext3_prepare_write: Journal has aborted
__journal_remove_journal_head: freeing b_committed_data
__journal_remove_journal_head: freeing b_frozen_data
__journal_remove_journal_head: freeing b_committed_data
```

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```
__journal_remove_journal_head: freeing b_frozen_data
__journal_remove_journal_head: freeing b_committed_data
__journal_remove_journal_head: freeing b_frozen_data
__journal_remove_journal_head: freeing b_committed_data
__journal_remove_journal_head: freeing b_frozen_data
__journal_remove_journal_head: freeing b_frozen_data
ext3_abort called.
EXT3–fs error (device sda1): ext3_journal_start_sb: Detected aborted journal
Remounting filesystem read–only
EXT3–fs error (device sda1) in start_transaction: Journal has aborted
```

When the disk is formatted and mounted as ext3, the error happens earlier than when formatted with ext2.

Running badblocks on the disk gives random results, every time it finds a few bad blocks in different positions.

The powermax utility from Maxtor says that the HDD is ok, and there are no bad blocks, actually I do not think it is an hardware problem, but a problem with the SATA controller driver (and maybe some incompatibility with the Maxtor drive).

Please let me know if you need any more information.

Good bye,  
Guido

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