

i2c-sis96x..txt

Kernel driver i2c-sis96x

Replaces 2.4.x i2c-sis645

Supported adapters:

- * Silicon Integrated Systems Corp (SiS)
Any combination of these host bridges:
645, 645DX (aka 646), 648, 650, 651, 655, 735, 745, 746
and these south bridges:
961, 962, 963(L)

Author: Mark M. Hoffman <mhoffman@lightlink.com>

Description

This SMBus only driver is known to work on motherboards with the above named chipset combinations. The driver was developed without benefit of a proper datasheet from SiS. The SMBus registers are assumed compatible with those of the SiS630, although they are located in a completely different place. Thanks to Alexander Malysh <amalysh@web.de> for providing the SiS630 datasheet (and driver).

The command "lspci" as root should produce something like these lines:

```
00:00.0 Host bridge: Silicon Integrated Systems [SiS]: Unknown device 0645
00:02.0 ISA bridge: Silicon Integrated Systems [SiS] 85C503/5513
00:02.1 SMBus: Silicon Integrated Systems [SiS]: Unknown device 0016
```

or perhaps this...

```
00:00.0 Host bridge: Silicon Integrated Systems [SiS]: Unknown device 0645
00:02.0 ISA bridge: Silicon Integrated Systems [SiS]: Unknown device 0961
00:02.1 SMBus: Silicon Integrated Systems [SiS]: Unknown device 0016
```

(kernel versions later than 2.4.18 may fill in the "Unknown"s)

If you cant see it please look on quirk_sis_96x_smbus
(drivers/pci/quirks.c) (also if southbridge detection fails)

I suspect that this driver could be made to work for the following SiS chipsets as well: 635, and 635T. If anyone owns a board with those chips AND is willing to risk crashing & burning an otherwise well-behaved kernel in the name of progress... please contact me at <mhoffman@lightlink.com> or via the linux-i2c mailing list: <linux-i2c@vger.kernel.org>. Please send bug reports and/or success stories as well.

TO DOs

* The driver does not support SMBus block reads/writes; I may add them if a scenario is found where they're needed.

Thank You

Mark D. Studebaker <mdsxyz123@yahoo.com>
- design hints and bug fixes
Alexander Maylsh <amalysh@web.de>
- ditto, plus an important datasheet... almost the one I really wanted
Hans-Günter Lütke Uphues <hg_lu@t-online.de>
- patch for SiS735
Robert Zwerus <arzie@dds.nl>
- testing for SiS645DX
Kianusch Sayah Karadji <kianusch@sk-tech.net>
- patch for SiS645DX/962
Ken Healy
- patch for SiS655

To anyone else who has written w/ feedback, thanks!