

# [PATCH] SATA support for Intel ICH7 – 2.6.10 – repost

**Source:** <http://linux.derkeiler.com/Mailing-Lists/Kernel/2004-12/6301.html>

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Reposting patch with word wrap turned off. Please let me know if this is still not formatted correctly.

This patch adds the Intel ICH7 DID's to the ata\_piix.c SATA driver, ahci.c SATA AHCI driver and quirks.c for ICH7 SATA support.

If acceptable, please apply.

Thanks,

Jason Gaston

```
--- linux-2.6.10/drivers/pci/quirks.c.orig 2004-12-24 13:33:49.000000000 -0800
+++ linux-2.6.10/drivers/pci/quirks.c 2004-12-30 04:24:21.128072896 -0800
@@ -1162,6 +1162,10 @@
     case 0x2653:
         ich = 6;
         break;
+ case 0x27c0:
+ case 0x27c4:
+ ich = 7;
+ break;
     default:
         /* we do not handle this PCI device */
         return;
@@ -1181,7 +1185,7 @@
     else
         return; /* not in combined mode */
 } else {
- WARN_ON(ich != 6);
+ WARN_ON((ich != 6) && (ich != 7));
     tmp &= 0x3; /* interesting bits 1:0 */
     if (tmp & (1 << 0))
         comb = (1 << 2); /* PATA port 0, SATA port 1 */
--- linux-2.6.10/drivers/scsi/ata_piix.c.orig 2004-12-24 13:35:50.000000000 -0800
+++ linux-2.6.10/drivers/scsi/ata_piix.c 2004-12-28 07:07:38.000000000 -0800
@@ -60,6 +60,7 @@
```

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```

    piix4_pata = 2,
    ich6_sata = 3,
    ich6_sata_rm = 4,
+ ich7_sata = 5,
};

static int piix_init_one (struct pci_dev *pdev,
@@ -90,6 +91,8 @@
    { 0x8086, 0x2651, PCI_ANY_ID, PCI_ANY_ID, 0, 0, ich6_sata },
    { 0x8086, 0x2652, PCI_ANY_ID, PCI_ANY_ID, 0, 0, ich6_sata_rm },
    { 0x8086, 0x2653, PCI_ANY_ID, PCI_ANY_ID, 0, 0, ich6_sata_rm },
+ { 0x8086, 0x27c0, PCI_ANY_ID, PCI_ANY_ID, 0, 0, ich7_sata },
+ { 0x8086, 0x27c4, PCI_ANY_ID, PCI_ANY_ID, 0, 0, ich7_sata },

    { } /* terminate list */
};
@@ -236,6 +239,18 @@
    .udma_mask = 0x7f, /* udma0-6 */
    .port_ops = &piix_sata_ops,
},
+
+ /* ich7_sata */
+ {
+ .sht = &piix_sht,
+ .host_flags = ATA_FLAG_SATA | ATA_FLAG_SRST |
+ PIIX_FLAG_COMBINED | PIIX_FLAG_CHECKINTR |
+ ATA_FLAG_SLAVE_POSS | PIIX_FLAG_AHCI,
+ .pio_mask = 0x1f, /* pio0-4 */
+ .mwdma_mask = 0x07, /* mwdma0-2 */
+ .udma_mask = 0x7f, /* udma0-6 */
+ .port_ops = &piix_sata_ops,
+ },
};

static struct pci_bits piix_enable_bits[] = {
--- linux-2.6.10/drivers/scsi/ahci.c.orig 2004-12-24 13:34:26.000000000 -0800
+++ linux-2.6.10/drivers/scsi/ahci.c 2004-12-28 07:07:38.000000000 -0800
@@ -239,9 +239,13 @@

static struct pci_device_id ahci_pci_tbl[] = {
    { PCI_VENDOR_ID_INTEL, 0x2652, PCI_ANY_ID, PCI_ANY_ID, 0, 0,
- board_ahci },
+ board_ahci }, /* ICH6 */
    { PCI_VENDOR_ID_INTEL, 0x2653, PCI_ANY_ID, PCI_ANY_ID, 0, 0,
- board_ahci },
+ board_ahci }, /* ICH6M */
+ { PCI_VENDOR_ID_INTEL, 0x27c1, PCI_ANY_ID, PCI_ANY_ID, 0, 0,
+ board_ahci }, /* ICH7 */
+ { PCI_VENDOR_ID_INTEL, 0x27c5, PCI_ANY_ID, PCI_ANY_ID, 0, 0,
+ board_ahci }, /* ICH7M */
    { } /* terminate list */

```

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};

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