# Information for i810 Users

Precision Insight, Inc.

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## 1. Supported Hardware

- Intel 810 motherboards:
  - i810,
  - i810-dc100,
  - i810e

## 2. Features

- Full support for 8, 15, 16, and 24 bit pixel depths.
- Hardware cursor support to reduce sprite flicker.
- Hardware accelerated 2D drawing engine support for 8, 15, 16 and 24 bit pixel depths.
- Support for high resolution video modes up to 1600x1200.
- Fully programmable clock supported.
- Robust text mode restore for VT switching.

## 3. Technical Notes

- Hardware acceleration is not possible when using the framebuffer in 32 bit per pixel format, and this mode is not supported by this driver.
- Interlace modes cannot be supported.
- This driver currently only works for Linux/ix86, and normal use requires the agpgart.o kernel module, included in Linux kernels 2.3.42 and higher.

## 4. Reported Working Video Cards

- Intel evaluation hardware - i810, i810-dc100 and i810e.
- Tyan Tomcat Motherboard.
- HappyPC set-top box.

## 5. Configuration

The driver auto-detects all device information necessary to initialize the card. The only lines you need in the "Device" section of your XF86Config file are:

```
Section "Device"
    Identifier "Intel i810"
    Driver     "i810"
EndSection
```

or let `xf86config` do this for you.

However, if you have problems with auto-detection, you can specify:

- DacSpeed - in MHz
- MemBase - physical address of the linear framebuffer
- IOBase - physical address of the memory mapped IO registers

In order to use most resolutions, it is necessary to install the 'agpgart.o' module. You will probably have to compile the module yourself (see the notes in the module).

Note: the i810 driver detects whether your motherboard has display cache video memory. This memory is has reduced bandwidth compared to normal system memory, and isn't used by the server. The main function of this memory is for ancillary buffers (eg. z buffer) in a forthcoming 3d capable server.

# 6. Driver Options

- "NoAccel" - Turn off hardware acceleration
- "SWCursor" - Request a software cursor (hardware is default)
- "Dac6Bit" - Force the use of a 6 Bit Dac (8 Bit is the default)

# 7. Known Limitations

- No 3D support in this release.
- Running two X servers on different VTs is not supported at this time.

# 8. Author

- Keith Whitwell

This driver was donated to The XFree86 Project by:

```
Precision Insight, Inc.
Cedar Park, TX
USA
```

http://www.precisioninsight.com

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$XFree86: xc/programs/Xserver/hw/xfree86/doc/sgml/i810.sgml,v 1.2 2000/03/04 00:00:30 dawes Exp $