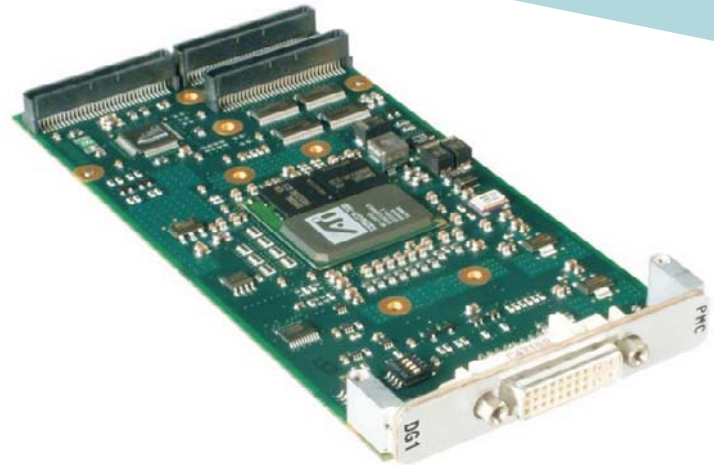


PMC Graphics Adaptor



APPLICATIONS

The IO PMC/DG1 is a high performance graphics adaptor suitable for any PMC compliant host board (CompactPCI®, VME, Multibus II etc). The on-board ATI Mobility™ Radeon® 7500 3D/2D dual display controller manages the graphics processing. The adaptor supports digital flat panel (DFP) displays with a Transition Minimized Differential Signaling (TMDS) interface, up to 1600 x 1200, and CRTs with an RGB interface, up to 2048 x 1536, via a single front panel DVI-I connector.

An additional independent DVI-D compatible TMDS interface is also available via PMC P4. Two of these interfaces can be driven simultaneously with the same or different images. Market applications are varied, but include the industrial, control, defense and medical sectors. Examples include high resolution color graphics, CAE/CAD/CAM, image processing as well as mapping systems.

HIGHLIGHTS

- High performance 3D/2D dual display controller:
 - 32 Mbytes of internal DRAM
 - maximum resolution 2048 x 1536
 - maximum color depth up to 32-bit per interface
 - maximum refresh rate up to 160Hz
- Supporting CRT and DFP interfaces:
 - with simultaneous CRT/DFP and DFP/DFP capability
 - DFP PanelLink® TMDS™ via DVI-I and PMC J4 connectors
 - CRT RGB via DVI-I connector
- Independent Hot Plug Detect and DDC on DVI-I and PMC P4 connectors
- 128 Kbytes EPROM for video BIOS
- PMC (PCI Mezzanine Card) format:
 - single size CMC (Common Mezzanine Card)
 - 33/66MHz, 32-bit PCI bus interface
 - 3.3V and 5V PCI signaling supported
- Supported by Windows® 2000, Windows® XP, Windows® XP Embedded, Linux® and QNX®
- For use with VME bus, CompactPCI and Multibus II PMC host boards
- Supplied with a DVI-I to HD15 (VGA) adaptor

Graphics Processor

- utilizes ATI Mobility™ Radeon® 7500 3D/2D dual display controller, which provides:-
 - dual display capability
 - resolutions up to 2048 x 1536 CRT
 - resolutions up to 1600 x 1200 DFP
 - 32-bit true color
 - internal 32 Mbytes DRAM
 - integrated 350MHz RAMDAC
 - 128-bit graphics engine
 - PCI interface

Resolutions

- supports 4:3 ratio resolutions:-
 - up to 2048 x 1536 pixels (CRT)
 - up to 1600 x 1200 pixels (DFP)
- supports widescreen (16:9 or 16:10 ratio) resolutions:-
 - up to 2048 x 1280 pixels (CRT)
 - up to 1600 x 1000 pixels (DFP)
- all resolutions supported at up to 32-bit color depth

CRT Interface

- up to 2048 x 1536 pixels, 32-bit color @ 75Hz refresh rate
- supports RGB compliant displays via DVI-I connector
- supplied with a DVI-I to HD15 adaptor for standard VGA connectors (CB DVI/121-00)

Flat Panel Interface

- supports TMDS™ compliant displays via:-
 - front panel DVI-I connector
 - rear panel DVI-D compatible PMC P4 connector utilizing Silicon Image SiI 164 Panellink Transmitter
- supports active matrix (TFT) and passive (DSTN) panels
- up to 1600 x 1200 pixels, 32-bit color @ 60Hz refresh rate
- supports twisted-pair cable, up to 5 meters in length

Dual Displays

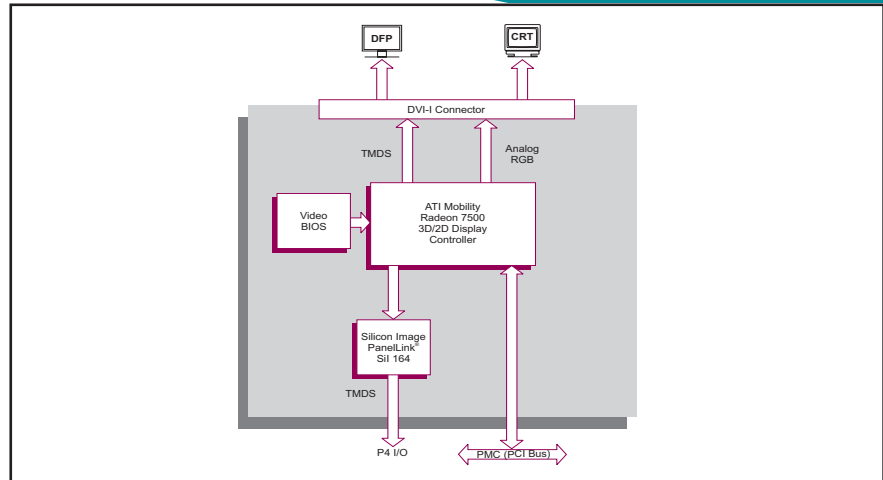
- two of the three DFP and CRT displays can be driven simultaneously with:-
 - the same or different image
 - the same or different resolution
 - the same or different refresh rate
- dependent on operating system software
- maximum recommended resolution 1600 x 1200 pixels, 32-bit color depth for both displays, with CRT @ 85Hz and DFP @ 60Hz refresh rate

PMC Interface

- complies with PCI protocol and electrical specification:-
 - 33/66MHz, 32-bit PCI bus interface
 - supports 3.3V and 5V signaling levels

BIOS EPROM

- serial 128 Kbyte EPROM containing video BIOS firmware



Software Support

- support for Windows 2000, Windows XP, Windows XP Embedded, Linux and QNX

Electrical Specification

- requires 3.3V and 5V supplies
- +5V @ 0.02A; +/-5% (typical)
- +3.3V @ 1A; +/-5% (typical)
- +12V and -12V supplies not utilized

Environmental Specification

- 0°C to +55°C (operating)
- 10% to 90% Relative Humidity non condensing (operating)
- 40°C to +70°C (storage)

Mechanical Specification

- single size CMC (Common Mezzanine Card) 74mm x 149mm
- 10mm height stack module

ORDERING INFORMATION

Order Number Product Description (Hardware)

- | | |
|---------------|--|
| IO PMC/DG1-00 | PMC Graphics Adaptor with DFP and CRT interfaces via DVI-I connector, plus PMC J4 TMDS interface, with a DVI-I to HD15 adaptor |
| CB DVI/121-00 | DVI-A connector to VGA HD15 connector (spare - this connector is supplied with IO PMC/DG1) |
| CB DVI/122-00 | DVI-I connector Y-split cable to VGA HD15 connector & DVI-D connector |