



M550

Real Time MPEG-1 & MPEG-2 Decoder PMC



- ***MPEG-1, MPEG-2 Program and Transport Streams***
- ***Composite and S-Video Front-Panel Outputs***
- ***Analog Audio Front-Panel Outputs (Single-Ended)***
- ***Composite and S-Video Single-Ended and Differential Outputs via PMC I/O***
- ***Analog audio (Single-Ended and Differential) Outputs via PMC I/O***
- ***Drivers for VxWorks® or Windows 95®/NT***
- ***IEEE 1386-2001 (Air Cooled) or VITA 20-2001 (Conduction Cooled) Compliant***
- ***Compliant with ISO 11172 (MPEG-1) & ISO 13818 (MPEG-2)***
- ***Commercial/Military Level Ruggedization***

Aitech Defense Systems, Inc.

A member of the Ai-Rugged Group

9301 Oakdale Ave, Chatsworth, Ca 91311

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Overview

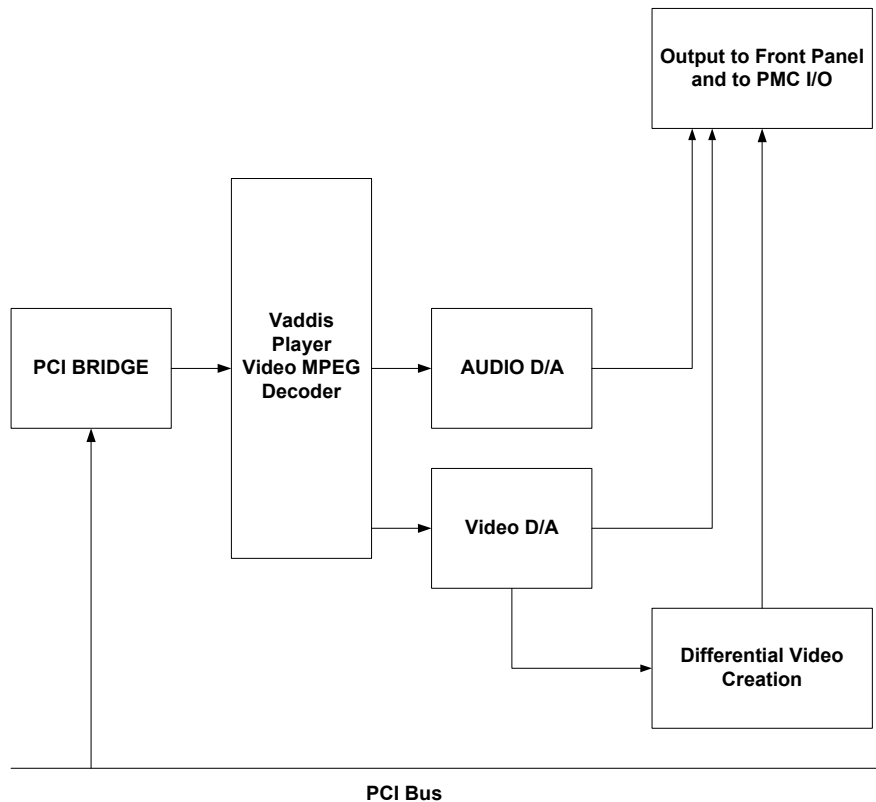
The MPEG interface is implemented using Zoran's chip set. The DSP processor is the ZORAN ZR36125, which interfaces the PCI bus through the ZORAN ZR36067 PCIbus multimedia controller. Compressed Video data is delivered over the PCI bus to the DSP processor, which performs all video and audio operations and moves it to:

- a. The RAM or VGA controller through the PCI bus.
- b. The front panel outputs: Composite, S-Video, Analog audio
- c. J1-4 output connector: Composite, S-Video, Analog audio

The DSP decodes MPEG-1 and MPEG-2 streams as well as high resolution still images. In addition, the NTSC/PAL output is also routed to the PMC I/O connector (J1-4) in 4 methods:

- a. Single-Ended Composite Video
- b. Single-Ended S-Video
- c. Differential Composite
- d. Differential S-Video

Differential signals can be transported for a long distance without quality loss. Audio is also routed to the PMC I/O connector



M550 - Block Diagram

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Features

- Auto-detect and recover from networks errors
- Handle underflows
- Handle clock discrepancies
- User Configurable On-Screen Display (OSD)

Audio

- MPEG Layer 1 & 2
- Sampling Frequency: 32, 44.1, 48 kHz
- Channels: 1-2
- 16/20 bit audio D/A
- Software adjustable audio output levels

Mpeg Compliance

- MP@ML 13818-2 video stream
- CCIR-601 video resolution
- PAL and NTSC video format

Physical Characteristics

- Single wide PCI mezzanine card (PMC)
- 2.9-inch x 5.9-inch (74 mm x 149 mm)
- Host PCI bus revision 2.1
- S-video and Composite (RCA) video output
- Analog audio output
- Rugged version available

PCI Bus Interface

The M550 supports 32-bit PCI bus operation at 33MHz and is fully compliant with the PCI Rev. 2.1 Specification.

The PMC is a universal PMC supporting both +5V and +3.3V PCI signaling levels. It does not utilize the PCI V_{I/O} power supply.

Physical Interface

- Composite video out (BNC) & S-Video out (Mini-DIN)
- Stereo analog audio out (3.5 mm mini jack)

Software

- Drivers for VxWorks[®] - Wind River Systems, Inc
- Drivers for Microsoft Windows 95[®]
- Multiplexing: Video, Audio, Program and Transport

Mechanical Features

The M550 PMC is available in two mechanical formats:

- Air-cooled per IEEE 1386-2001 for installation on top commercial and rugged air-cooled carrier boards.
- Conduction cooled per ANSI/VITA20-2001 for installation on top IEEE 1101.2 conduction-cooled carrier boards.

High power components are cooled by an aluminum heatsink.

All M550 I/O signals are routed to the PMC P4 I/O connector.

Dimensions

- Air-cooled: per IEEE 1386-2001
- Conduction cooled: per ANSI/VITA 20-2001

Power Requirements

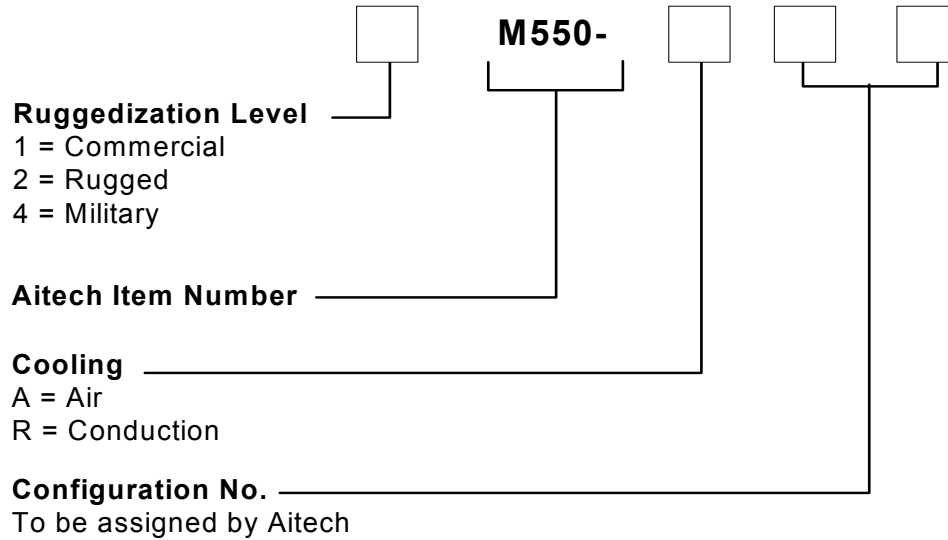
- Supply voltage input: 5V
- Total power consumption (full operation): 7W.

Environmental Features

Please, refer to Aitech's ruggedization datasheet.



Ordering Information for the M550



Example: 1M550-A00



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