Power Macintosh: AV Video Technologies Card (7/95)

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TOPIC ----------

This article describes the AV Technologies Video Card (Apple order number: M3447LL/A)* found on Power Macintosh.

DISCUSSION ----------

The AV video card is an Apple expansion card that plugs into the PDS (Processor Direct Slot) connector of any Power Macintosh computer. It contains a sophisticated I/O system that handles video input and output signals, mixes video with 16-bit graphics, and supports a wide variety of Apple and third-party monitors. The AV I/O system also lets you connect a television set as a monitor, using either NTSC (National Television Standards Committee - primarily used in North America and Japan) or PAL (Phase Alternating Line - primarily used outside of North America and Japan) format.

The AV card expands the Power Macintosh computer's video capabilities to include the video capture and output features of the Apple AV Technologies. These video features were introduced with the Macintosh Centris 660AV and Macintosh Quadra 840AV.

Power Macintosh models 6100 AV, 7100 AV, and 8100 AV are shipped with the AV card installed. On the Power Macintosh 6100 AV, the card uses an angle adapter card.

A 40-pin connector on the AV card implements the Macintosh Digital Audio/Video (DAV) interface. The DAV connector taps into the AV card's unscaled YUV video input signal; through the PDS interface, it also connects to the digital audio signal input for the sound chip. NuBus cards for the Power Macintosh 7100 AV and 8100 AV can be designed with a flat ribbon cable that plugs into the DAV connector on the AV card, so they can access these video and audio signals directly.

Power Macintosh AV models are shipped with two adapter cables so you can connect your AV card to a standard television set, video camera, videodisc player, and videocassette recorder. The input cable connects the signal pin of an RCA socket to pin 3 (the luminance signal) of the AV card's video output connector.

The video and graphics I/O system is built around two banks of 80ns VRAM with a

total capacity of 2MB. The CIVC (Cyclone Integrated Video Interfaces Controller) chip manages this VRAM and provides timing and interrupt signals. Applications can use the VRAM in two ways:

• As a single frame buffer that uses all the VRAM capacity

• As two frame buffers, one for video and one for graphics

If you configure the VRAM as a single video frame buffer, it can all be used for graphics and the video input can be disabled. If you configure the VRAM as two frame buffers, it can store video as well as graphics.

* NOTE:
Part numbers mentioned in this article are accurate as of this writing. Before ordering, verify that they are still correct as they are subject to change.

Article Change History:
14 Jul 1995 - Added part number and part number disclaimer.
14 Dec 1994 - Added keyword, clarified acronyms, made minor technical changes.

Support Information Services

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