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Macintosh II Video Card: Features (2/95)

Article Created: 18 September 1987

Article Reviewed/Updated: 14 February 1995

TOPIC -----

This article describes the original Macintosh video card.

DISCUSSION -----

The Macintosh II video card provide scolor capability for simultaneous display of up to 256 colors on the Apple High Resolution Color Monitor. With the card's three 8 bit digital to analog converters (RGB) there are more than 16 million possible colors to choose from.

Color Modes

- One bit per pixel for 2 color output
- Two bits per pixel for 4 colors
- Four bits per pixel for 16 colors
- Optional Eight bits per pixel for 256 colors

Video Signals

- RS343 Analog RGB for Apple High Resolution Color Monitor
- RS343 Analog Green signal for Apple High Resolution Monochrome Monitor
- RS170 Composite interlaced video for analog RGB monitors, film recorders and projection TV's
- RS170 Analog Green signal for composite interlaced video with sync for analog monochrome monitors, film recorders, and projection TV's

Hardware Features

- Multiple video card operation for larger screen area For example, 2 cards handle 2 video screens for viewing different or large format documents.
- Standard VIDEO RAM configuration of 256K for 1, 2, and 4 bit color modes 8

chips of 150NS 64x4 KBit Video RAM.

- Upgraded VIDEO RAM configuration of 512K for 8 bit color mode 8 additional chips of 150NS 64x4 Kbit Video RAM

*** Video RAM contains a shift register for the copying of rows of bits from the RAM array. This allows reads and writes to the RAM array and the shift register simultaneously. This is not a feature of standard or common RAM and is necessary to the workings of the video card.

- Two Oscillators provide timing signals of:
30.24MHz for Macintosh II monitors (RS343)
12.27MHz for RS170 monitors (Composite Monochrome interlaced video)
- Slot independent operation
- Triple 8 bit digital to analog converters for 2 to the 24th colors equalling 16.8 million.

Article Change History:

14 Feb 1995 - Reviewed for technical accuracy, corrected spelling of sync.

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Keywords: <None>

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19960215 11:05:19.00

Tech Info Library Article Number: 556