MU9C1715
GRAPHICS COLOR PALETTE

PRODUCT INFORMATION

DISTINCTIVE CHARACTERISTICS

- Combination Look-up Table and Triple Video DAC
- Directly drives single- or double-terminated 75-ohm transmission line
- VGA, Super-VGA, VESA, TIGA™ and 8514/A compatible with enhanced features
- Displays 256 colors from a palette of 256K colors
- Four-bit Nibble Mode with 16 palettes of 16 colors
- 18-bit Direct Color Mode displays 256K colors from three bytes per pixel
- 16-bit Direct Color Mode displays up to 64K colors (four selectable mappings, including TARGA™ 555 and XGA™ 565) from two bytes per pixel
- Two reduced-power Sleep Modes
- Setup and Sync for Video Monitor compatibility
- Asynchronous Microprocessor Interface
- Pixel Replicate™ allows Look-up Table or Mask Register access during active display time
- Uses low-cost Current Reference
- Industry-standard 44-pin PLDCC package
- Available with 125-MHz, 110-MHz, 80-MHz and 66-MHz Pixel Rates
- High-performance CMOS for low power with TTL-compatible inputs

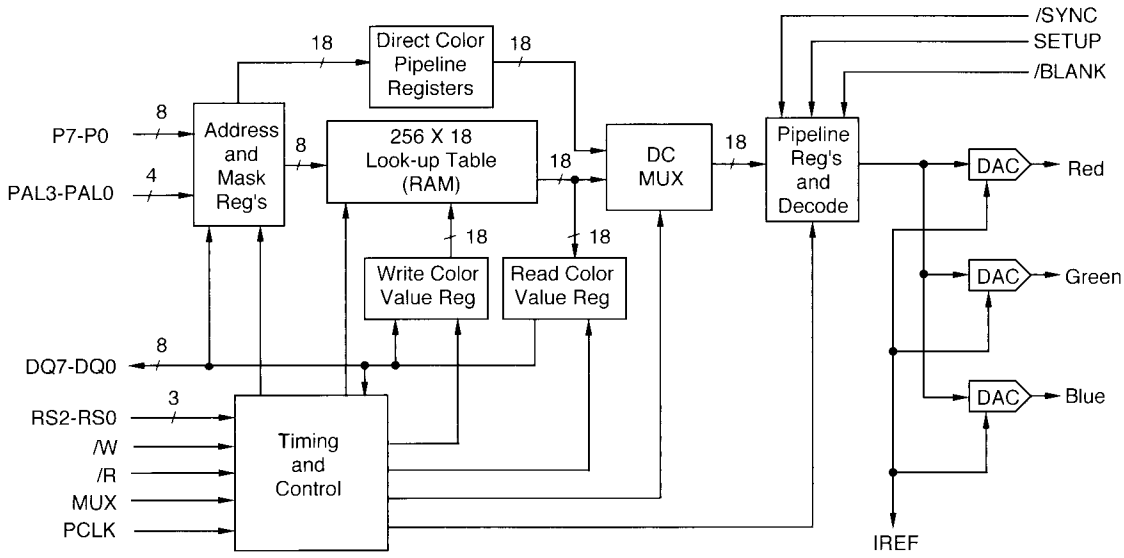
GENERAL DESCRIPTION

The MU9C1715 Direct Color Graphics Palette features a 256-word by 18-bit Look-up table, Direct Color bypass, and three six-bit Video DACs. The Look-up table accepts up to eight bits per pixel from a frame buffer and performs a translation into three six-bit values for conversion into Red, Green, and Blue analog signals. Each of the Video DACs can directly drive a double-terminated 75-ohm transmission line.

The MU9C1715 is fully compatible with VGA, Super-VGA, VESA, TIGA and 8514/A industry standards while providing many enhanced features. Direct color operation bypasses the Look-up table to provide 32K, 64K, or 256K displayable colors through various standard mappings. Nibble mode loads two four-bit pixels in parallel and allows slower memory or controllers to support high-resolution displays. The two Sleep modes reduce power consumption in portable applications. The three DAC outputs have sync pulses and programmable pedestals. A proprietary Pixel Replicate™ feature allows Look-up table reads and writes to occur during the active portion of the display.

The MU9C1715 is offered in a standard 44-pin PLDCC package and supports the screen resolution, power requirements, and color capability needed for high- performance Desktop and Portable PC, Desktop Publishing and Workstation Graphics systems.

BLOCK DIAGRAM



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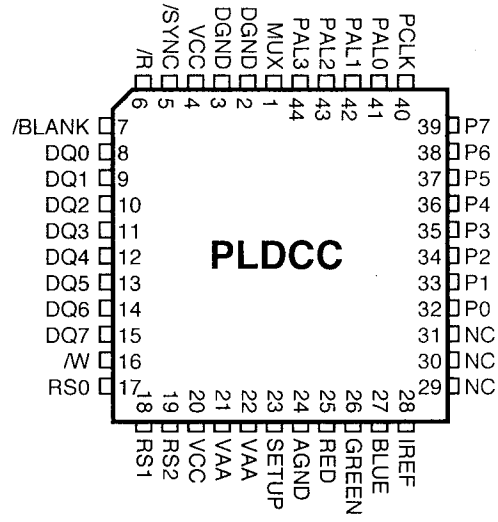
PINOUT DIAGRAM



ORDERING INFORMATION

PART NUMBER	SPEED	PACKAGE	TEMPERATURE RANGE
MU9C1715-XXDC		44-PIN PLDCC	0-70°C
XX = 66	66MHz		
XX = 80	80MHz		
XX = 11	110MHz		
XX = 12	125MHz		

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