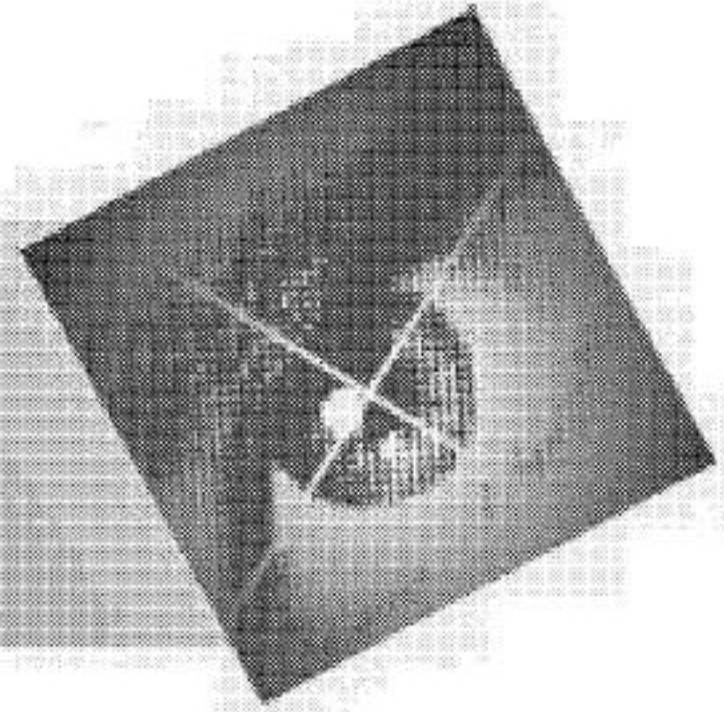


Bt481A

110 MHz 256-Word Color Palette 15-, 16-, and 24-Bit True Color Power-Down RAMDAC



Designed specifically for high-performance color graphics, the Bt481A RAMDAC supports three true-color modes: 15-bit (5:5:5, 32 K colors) TARGA format, 16-bit (5:6:5, 65 K colors) XGA format, and 24-bit BGR (8:8:8, RGB/BGR, 16.8 M colors) true-color format. It also supports 8-bit pseudo-color format (256 colors).

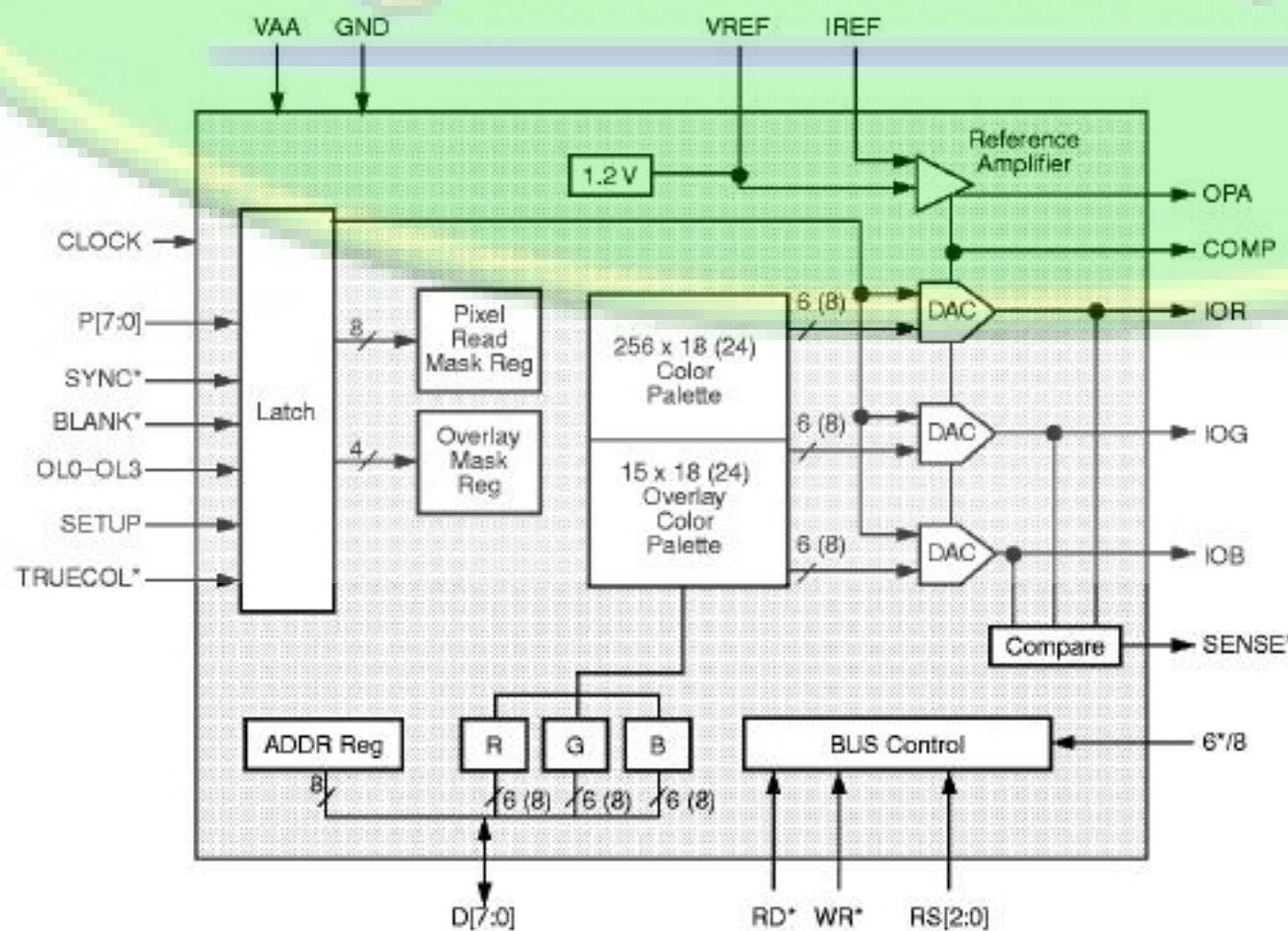
The Bt481A has a 256 x 18 (24) lookup table RAM, 15 x 8 (24) overlay registers, and triple 8-bit D/A converters. Both 6- and 8-bit color modes are supported.

A power-down mode is available on the Bt481A to reduce power requirements when the analog outputs are not used. This is useful in laptop computer systems that require the option to drive an external RGB monitor.

The Bt481A has on-chip analog output comparators to simplify diagnostics and debugging, with the result output onto the SENSE* pin. Also included is an on-chip voltage reference to simplify use of the device.

The Bt481A generates RS-343-compatible video signals into a doubly terminated load.

Functional Block Diagram



Distinguishing Features

- 110 MHz Operation
- Supports 8:8:8, 24-bit true color and VGA overlay
- Supports 8:8:8 24-bit RGB/BGR selectable true-color format
- Supports 5:6:5 XGA true-color format
- Supports 5:5:5 TARGA true-color format
- Replaces Bt471/475/476/477/478 which are pin compatible
- Power-on reset for internal registers
- Power-down mode
- Antisparkle circuitry
- Analog output comparators
- Triple 6-bit (8-bit) D/A converters
- 256 x 18 (24) color palette RAM
- 15 x 18 (24) overlay registers
- Optional internal voltage reference
- Programmable pedestal
- Sync on all three channels
- Standard MPU interface
- 44-pin PLCC package

Applications

- High-resolution color graphics
- CAE/CAD/CAM
- Image processing
- Instrumentation
- Desktop publishing
- Laptop computers