



## Features (Continued)

- Programmable white peak control for the Y or CVBS channel
- Software selectable analog inputs allows any of the following:
  - Up to 4 composite video
  - Up to 3 S-Video
  - Up to 2 analog YPbPr and RGB
- 4-H adaptive comb filter Y/C separation
- PAL delay line for color phase error correction
- Digital PLL for both color and horizontal locking
- Programmable hue, brightness, saturation, contrast, sharpness, Gamma control, and noise suppression
- Automatic color control and color killer

## Analog RGB/YPbPr Input

- Built-in sync processor for SOG support
- Built-in Line-locked PLL supporting up to 108MHz
- Built-in input measurement function

## Digital Interface

- Allows connection to 8/16/24-bit RGB/YCbCr
- Supports both interlaced and progressive ITU 656

## TFT Panel Support

- Supports a variety Analog active matrix TFT panels
- Supports analog panel up to WQVGA (480 x 234), 20MHz

## Built-in Microcontroller

- Supports external SPI Interface and I2C Master interface with GPIO
- Supports 8 MCU GPIO, 1 UART (up to 9600bps)
- Supports IR or interrupt with GPIO

## CCFL and LED Controller

- Single channel CCFL controller based on push-pull architecture
- Lamp fault monitoring- Lamp Open, Lamp Over-current, Failure to Strike and Over-voltage
- Programmable Lamp Frequency to move EMI spurs out of band
- Analog or digital brightness control. 300:1 dimming range with the digital brightness control.
- Low power stand-by mode
- Fine dimming control step (128 steps)

## OSD

- Built-in OSD controller with integrated character 202 ROM fonts, programmable 227 RAM fonts and 512 characters display RAM.
- Multi-window (4) OSD support with color pallet
- 16 font & window colors available
- Supports OSD overlay with alpha blending

## Image Enhancement

- Programmable hue, brightness, saturation, and contrast controls
- Sharpness control with vertical peaking
- Programmable CTI control
- Built-in de-interlacing engine
- Independent RGB gain and offset controls
- Panorama / Water-glass scaling
- YCbCr hue adjustment
- Programmable Gamma correction tables
- Programmable favorite color enhancement

## Power Management

- Supports Panel power sequencing.
- Supports DPMS for monitor power management
- 1.8 / 3.3 V operation

## Timing Controller (TCON)

- Supports programmable interface signals for control
- Column (source) driver / row (gate) driver

## Miscellaneous

- Supports 2-wire serial bus interface
- spread spectrum PLL
- Low-speed ADC for KEY scan
- Programmable panel VCOM offset control
- 5V tolerant I/O
- Power-down mode
- DFT
- Typical power consumption < 500mW
- Single 27MHz crystal

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