

## TW2824

FN7738

Rev. 0.00

### 4-Channel Video QUAD/MUX Controller for Security Applications

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The TW2824 has four high quality NTSC/PAL video decoders, dual color display controllers and dual video encoders. The TW2824 contains four 10-bit analog-to-digital converters, proprietary digital gain/clamp controller, high quality Y/C separator to reduce cross-noise and high performance dual scaler to provide various pictures. Four built-in motion and blind detectors can increase the feature of the security system. The TW2824 has a flexible video display controller including QUAD and MUX basic functions. The TW2824 also has an excellent graphic overlay function which displays character/bitmap, box and mouse pointer. The TW2824 contains two video encoders with four 10-bit digital-to-analog converters for providing 2 composite or S-video.

## Features

### Four Video Decoders

- Accepts all NTSC/PAL standard formats with auto detection
- Integrated four anti-aliasing filters and 10-bit CMOS ADCs
- High performance adaptive comb filters for all NTSC/PAL standards
- IF compensation filter for improvement of color demodulation
- PAL delay lines for correcting PAL phase errors
- Programmable hue, saturation, contrast, brightness and sharpness
- Dual high performance horizontal and vertical scaler for each channel.
- Four built-in motion detectors with 16x12 cells and blind detectors

### Dual Video Controllers

- Additional 1-channel digital input for playback or cascade operation
- Full live/strobe/switch function
- Auto sequence switch with 64 queues and/or manual switch by interrupt

- Various channel attribute control
- Image enhancement for still image
- High performance 2x zoom for horizontal and vertical direction
- Supports save and recall function
- Last image capture when video-loss
- Extendable to 8-/12-/16-channel video controller using cascade connection
- Path-to-path cascade
- Character/bitmap overlay for OSD
- 16 programmable single boxes
- 4 2D arrayed boxes for motion result display
- Mouse pointer overlay

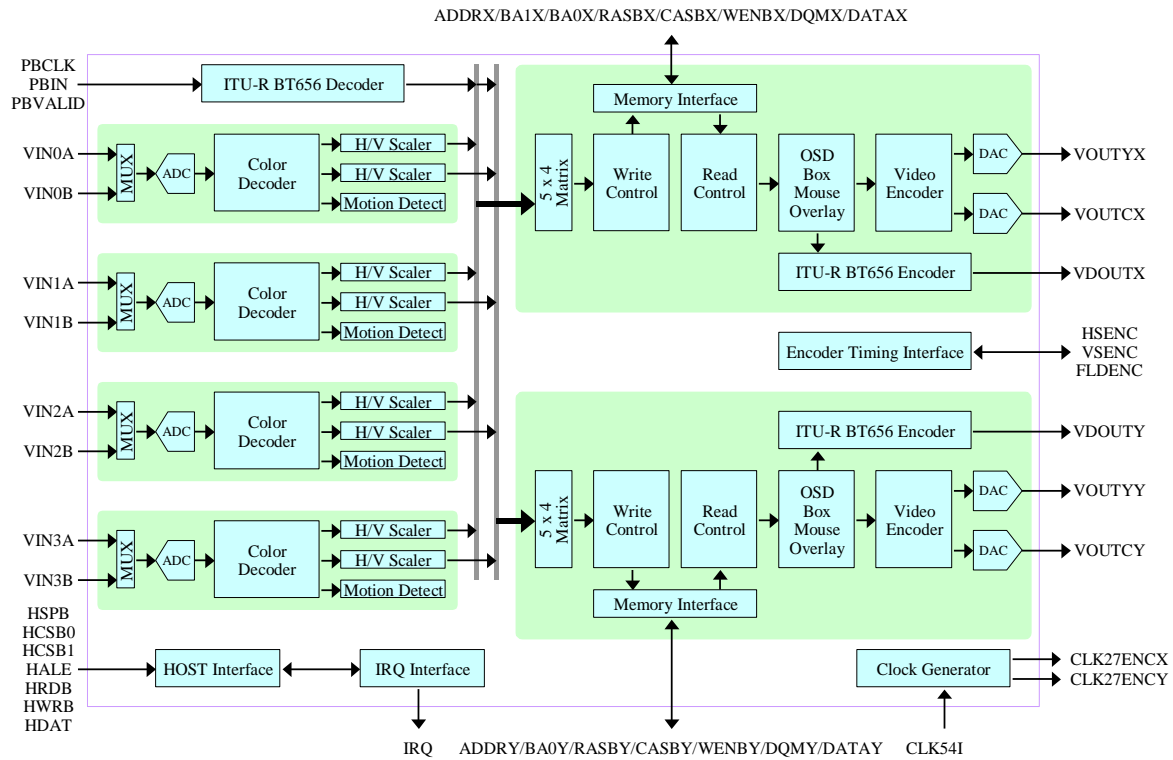
### Dual Video Encoders

- 2 path digital outputs with ITU-R BT.656 standards
- 2 path analog outputs with all analog NTSC/PAL standards
- Supports CVBS or S-video for each path
- Programmable bandwidth for luminance and chrominance path
- Four 10-bit video CMOS DACs

## Applications

- Analog QUAD/MUX system
- 4-/8-/16-channel DVR system
- Car rear vision system
- Hair shop system

# Block Diagram



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