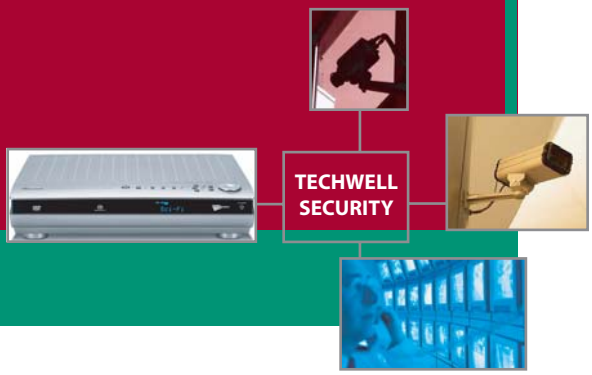
Techwell
Mixed Signal Semiconductor Solutions



Security Surveillance IC Solutions

Features

TW2834

4 Channel Video QUAD/MUX Controller
For Security Applications

Target Applications

- Analog Quad\Mux Security System
- 4/8/16 Ch. Digital Video Recorder (DVR)
- Car Rear Vision System

Four Video Decoders

- Four built-in analog anti-aliasing filters
- 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
- Fast video locking system for Non-real time system
- Auto cropping / strobe for playback input with Channel ID decoder
- Supports four channel full D1 record output and playback input

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

The TW2834 has four high quality NTSC/PAL video decoders, dual color display controllers and dual video encoders. The TW2834 contains four built-in analog anti-aliasing filters, 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. Four built-in motion and blind detectors can increase the feature of a security system. The TW2834 has a flexible video display controller including basic QUAD and MUX functions. The TW2834 also has excellent graphic overlay function that displays character/bitmap for OSD, single box, 2D array box, and mouse pointer. The built-in channel ID CODEC allows auto decoding and displaying during playback and the additional scaler on the playback supports multi-cropping function of the same field or frame image. The TW2834 contains two video encoders with four 10-bit Digital-to-Analog converters for providing 2 composite or S-video outputs. The TW2834 also can be extended up to 8/16 channel video controller using chip-to-chip cascade connection.

Dual Video Controllers

- Full Live/Strobe/Switch function
- Various channel attribute control
- Non-realtime application such as Pseudo 8 Channel or Dual page
- Horizontal / Vertical Mirroring for each channel
- Last image capture when video-loss detected
- Auto sequence switch with 128 queues and/or manual switch by interrupt for Y Path
- Channel skip in Auto sequence switch for Y Path when video-loss detected
- Image enhancement for zoomed or still image in X Path
- High performance 2X zoom to horizontal and vertical direction for X Path
- Supports save and recall function for X Path
- Extendable up to 8/16 channel video controller using cascade connection
- Quad MUX switch with 32 queues and/or manual control by interrupt for Y Path
- Character/Bitmap overlay for OSD with 720x480 resolution in NTSC / 720x588 in PAL
- Sixteen programmable single boxes overlay
- Four 2D arrayed boxes overlay with dual color for motion result or table display
- Mouse pointer overlay
- Analog/Digital Channel ID Encoder
- 208 pin PQFP Package

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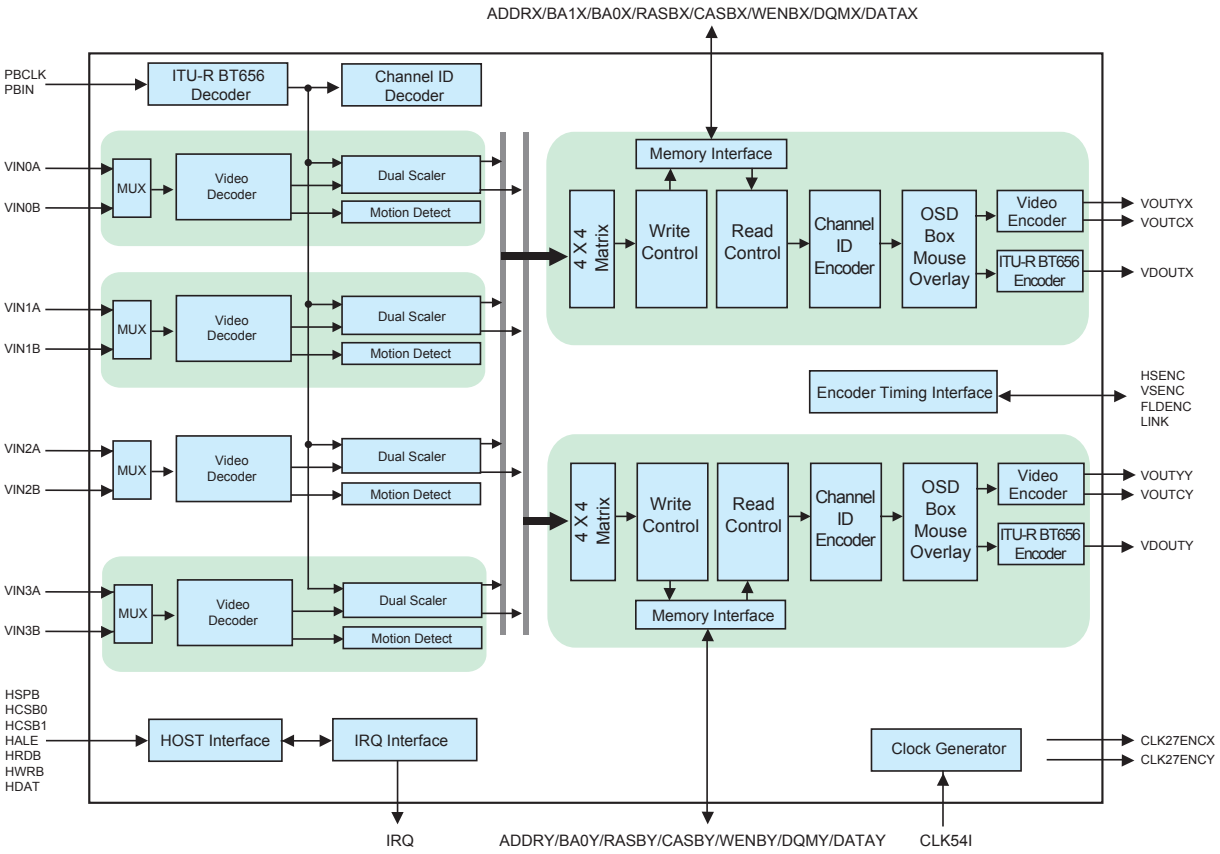
TW2834 Block Diagram



About Techwell

Techwell designs and sells mixed signal semiconductor solutions for digital video applications. The company's products enable the conversion of analog video sources to digital form and facilitate the display, storage and transport of digital video, HDTV, and personal computer display information. Headquartered in San Jose, CA, Techwell currently has over 60 employees in the U.S., Korea, and Taiwan.

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For more information on Techwell, please contact us at 1-408-435-3888