intersil®
Techwell™

Security Surveillance IC Solutions

TECHWELL SECURITY

Features

Target Applications

- Standalone DVR
- PC Based DVR

Features

- Accepts all NTSC(M/N/4.43) / PAL(B/D/G/H/I/K/L/M/N/60) standards with auto detection
- Integrated four video analog anti-aliasing filters and 10 bit CMOS ADCs
- High performance adaptive 4H comb filters for all NTSC/PAL standards
- IF compensation filter for improvement of color demodulation
- Color Transient Improvement (CTI)
- Automatic white peak control
- Programmable hue, saturation, contrast, brightness and sharpness
- Proprietary fast video locking system for non-realtime application
- Supports the standard ITU-R BT.656 format or time multiplexed output with 54MHz
- Provides simultaneous four channel Full D1 and CIF time-multiplexed outputs with 54MHz
- Integrated four audio ADCs and one audio DAC *
- Provides multi-channel audio mixed analog output *
- Supports a standard I2S interface for record output and playback input *
- 8/16 bit audio word length
- Sample audio with 8/16KHz
- Supports a two-wire serial host interface
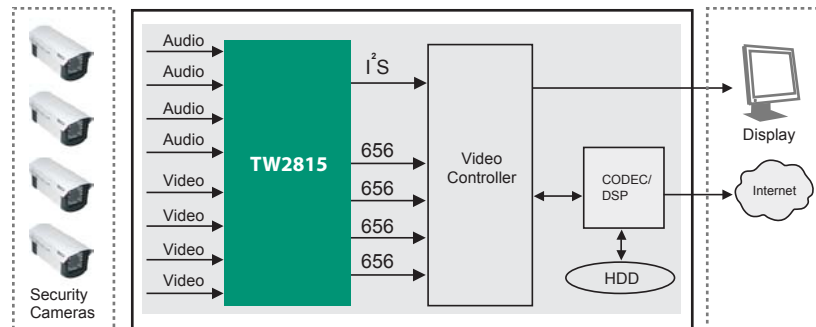- Ultra low power consumption (Typical 500mW)
- 100 TQFP package
- * TW2815 only

TW2815

4 Channel Video Decoders and Audio Codec
For Security Applications
* Pin to pin compatible with the TW2816

The TW2815 includes four high quality NTSC/PAL video decoders that convert analog composite video signals to digital component YCbCr data for security applications. The TW2815 contains four 10 bit ADCs and proprietary clamp and gain controllers and utilizes 4H comb filters for separating luminance & chrominance to reduce cross noise artifacts. The TW2815 adopts image enhancement techniques such as IF compensation filter, CTI and programmable peaking. The TW2815 also includes an audio CODEC which has four audio Analog-to-Digital converters and one Digital-to-Analog converter. A built-in audio controller can generate digital outputs for recording/mixing and accepts digital input for playback.
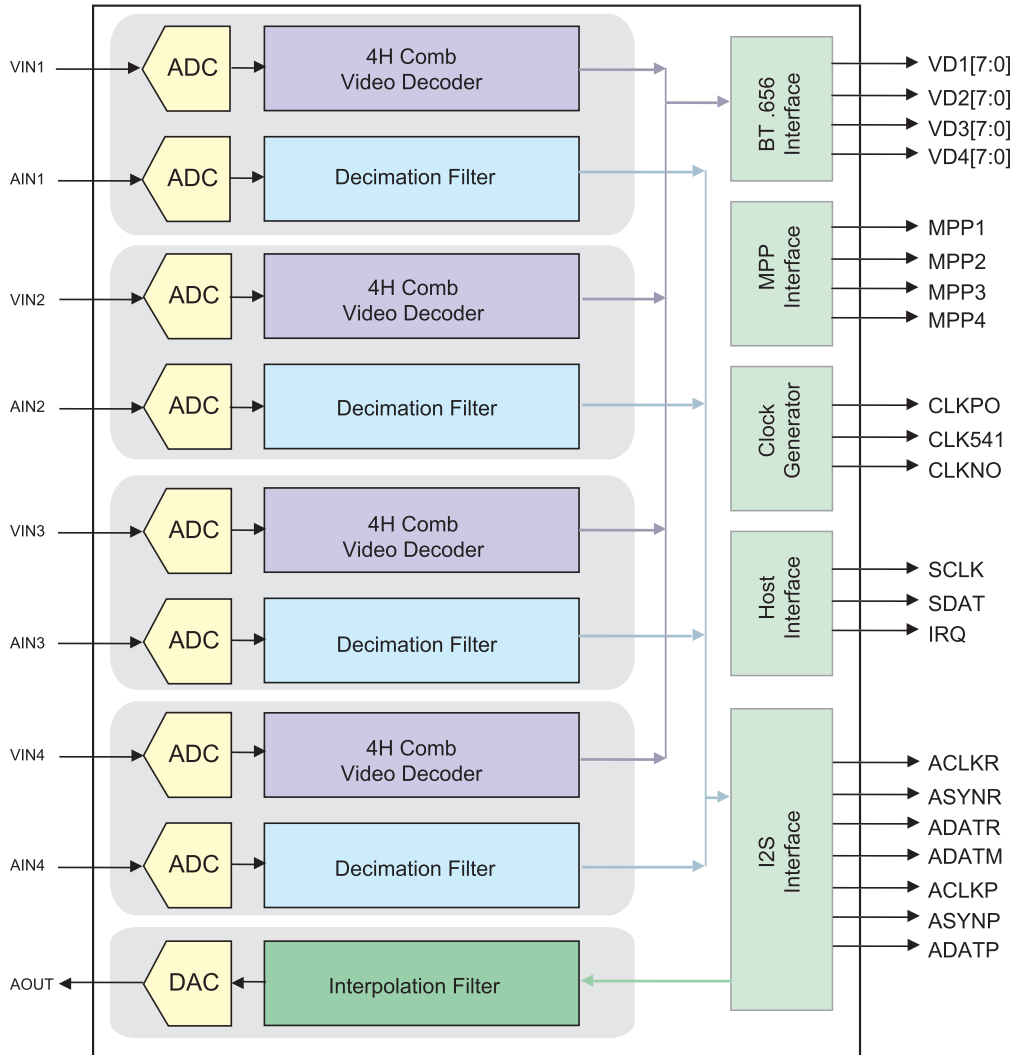
Block Diagram

Security Cameras → Audio, Audio, Audio, Audio, Video, Video, Video, Video, Video → TW2815 → I^2S, 656, 656, 656, 656 → Video Controller → CODEC/DSP, HDD → Display, Internet

Techwell TW2815

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TW2815 Block Diagram

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