TECHWELL SECURITY

Security Surveillance IC Solutions

Features

TW2816
4 Channel Video Decoders
For Security Applications
* Pin to pin compatible with the TW2815

Target Applications

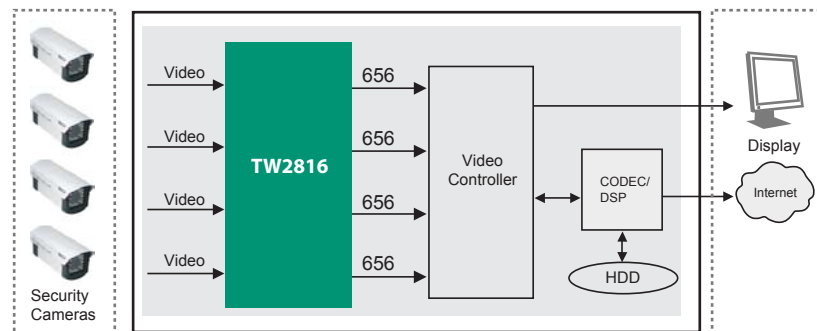- Standalone DVR
- PC Based DVR

The TW2816 includes four high quality NTSC/PAL video decoders that convert analog composite video signals to digital component YCbCr data for security applications. The TW2816 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 TW2816 adopts image enhancement techniques such as IF compensation filter, CTI and programmable peaking.

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 applications
- 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
- Supports a two-wire serial host interface
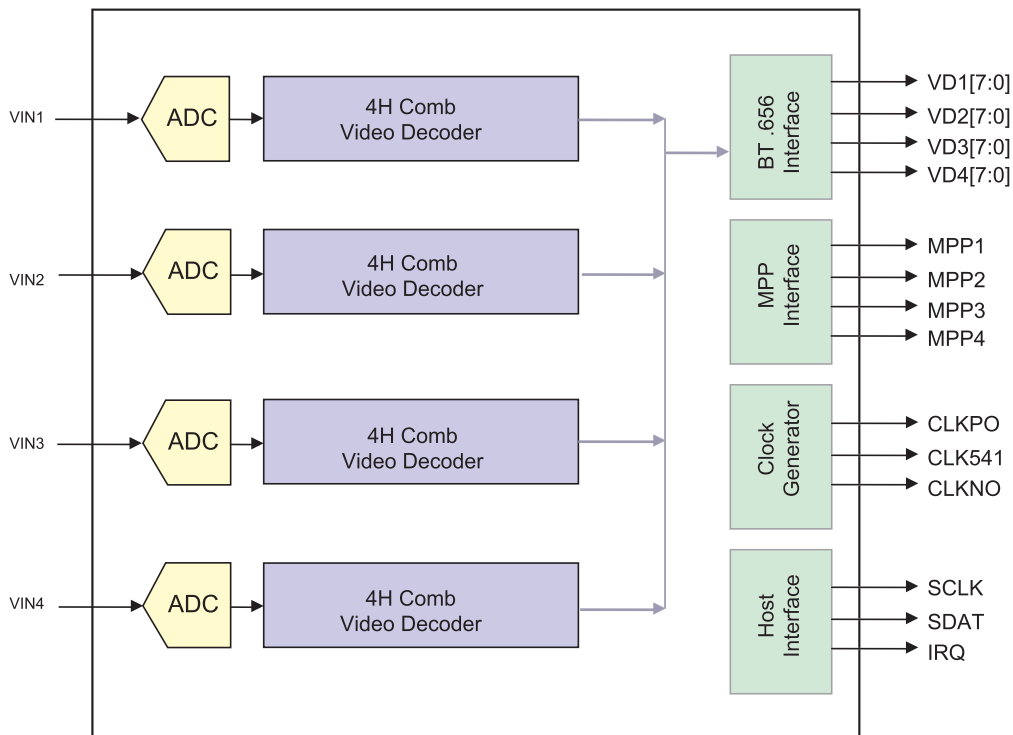- Ultra low power consumption (Typical 480mW)
- 100 TQFP package

Block Diagram

TW2816
4 Channel Video Decoders
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TW2816 Block Diagram

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VIN1 → ADC → 4H Comb Video Decoder

VIN2 → ADC → 4H Comb Video Decoder

VIN3 → ADC → 4H Comb Video Decoder

VIN4 → ADC → 4H Comb Video Decoder

BT .656 Interface → VD1[7:0], VD2[7:0], VD3[7:0], VD4[7:0]

MPP Interface → MPP1, MPP2, MPP3, MPP4

Clock Generator → CLKPO, CLK541, CLKNO

Host Interface → SCLK, SDAT, IRQ

About Techwell

Techwell is a fabless semiconductor company that designs, markets and sells mixed signal integrated circuits for multiple digital video applications in the consumer, security surveillance and automotive markets, including advanced TVs, multifunction LCD monitors, DVD Recorders, security surveillance systems and in-car LCD displays. Founded in 1997, we currently have over 80 employees and are headquartered in San Jose, California, with additional R&D and sales activities in South Korea, Japan, Taiwan and China. NASDAQ: TWLL

Techwell
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