





# TW2815

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

TECHWELI SECURITY

### **Target Applications**

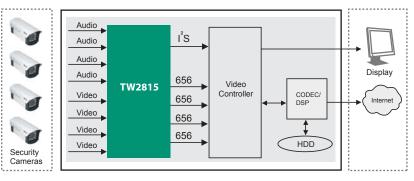
- Standalone DVR
- PC Based DVR

#### 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 nonrealtime 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

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 Digitalto-Analog converter. A built-in audio controller can generate digital outputs for recording/mixing and accepts digital input for playback.

#### **Block Diagram**





## intersil. Techwell

## TW2815

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

#### 4H Comb ► VD1[7:0] VIN1 ADC BT .656 Interface Video Decoder VD2[7:0] VD3[7:0] VD4[7:0] **Decimation Filter** AIN1 ADC ► MPP1 MPP Interface ► MPP2 4H Comb ► MPP3 ADC VIN2 Video Decoder MPP4 Clock Generator ADC CLKPO AIN2 **Decimation Filter** CLK541 CLKNO 4H Comb VIN3 ADC Video Decoder Host Interface SCLK SDAT IRQ ADC AIN3 **Decimation Filter** 4H Comb ADC VIN4 ACLKR Video Decoder ASYNR I2S Interface ADATR ADATM ADC AIN4 **Decimation Filter** ACLKP ASYNP ADATP DAC AOUT 🗲 Interpolation Filter

#### TW2815 Block Diagram

© 2004 Intersil Americas Inc. All Rights Reserved. The following are trademarks or registered trademarks of Intersil Americas Inc.: Intersil, Intersil logo, "i" and Design. All other trademarks are the property of the respective trademark owners.

## 

www.intersil.com

## **Mouser Electronics**

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Intersil: TW2815-TA1-GR