

Multichannel H.264 Audio/Video Codec

TW2819

The [TW2819](#) is a high performance and cost effective multi-channel H.264 CODEC solution designed for the security surveillance market. It is capable of receiving and encoding maximum 16 channels standard definition (SD) or 960H (WD1) video. It can also support up to 8-channel high definition (HD) 720p or 4-channel 1080p encode. It supports D1/960H/720p/1080p decode also up to 4 channels. Each video channel can be independently controlled in terms of encode/decode mode, frame rate, bit rate.

Applications

- HD-SDI Digital Video Recorder
- H.264 Network Video Encoder
- HD compression PC card

Features

Video Features

- Real time full-duplex video CODEC compliant to H.264 main profile standard
- Four BT.656 byte-interleaved video input port up to 144MHz
- Four BT.656/1120 video output port up to 74.25MHz
- Four dedicated BT.1120 video input ports at 148.5MHz
- Four BT.1120 bidirectional video input/output port at 148.5MHz
- Supports up to 16-channel real time SD encode
- Supports up to 16-channel 960H encode
- Supports up to 8-channel HD 720p encode
- Supports up to 4-channel HD 1080p encode
- Supports CIF JPEG or H.264 network stream encode
- Supports simple OSD function on the H-264 encoding path

Audio Features

- Real time 16-channel encode and 1-channel decode compliant to ADPCM standard.
- Four digital audio input I/F compliant to I2S standard
- One digital audio output I/F compliant to I2S standard
- Audio sample rate from 8kHz to 48kHz Peripheral I/F

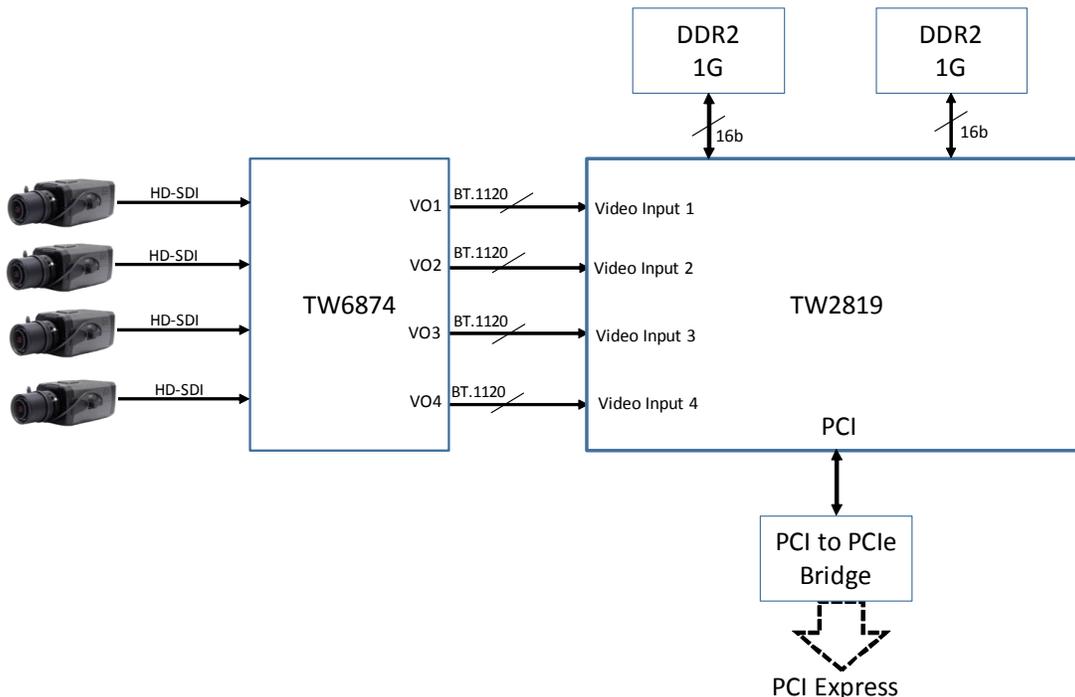


FIGURE 1. TYPICAL APPLICATION DIAGRAM

Peripheral

- Two external 16-bit DDR2 SDRAM at 432MHz
- 32-bit PCI target for host communications at 33/66MHz

Voltage and Power Consumption

- 1.2V for core
- 3.3V for I/O pad
- 1.8V for DDR2 DRAM I/O
- 4.7W typical case power consumption

Package

- TEPBGA-676, 35mmx35mm, 1.0mm lead pitch

For additional products, see www.intersil.com/en/products.html

Intersil products are manufactured, assembled and tested utilizing ISO9001 quality systems as noted in the quality certifications found at www.intersil.com/en/support/qualandreliability.html

Intersil products are sold by description only. Intersil Corporation reserves the right to make changes in circuit design, software and/or specifications at any time without notice. Accordingly, the reader is cautioned to verify that data sheets are current before placing orders. Information furnished by Intersil is believed to be accurate and reliable. However, no responsibility is assumed by Intersil or its subsidiaries for its use; nor for any infringements of patents or other rights of third parties which may result from its use. No license is granted by implication or otherwise under any patent or patent rights of Intersil or its subsidiaries.

For information regarding Intersil Corporation and its products, see www.intersil.com