

TW2819

Multichannel H.264 Audio/Video Codec

FN8404
 Rev.1.00
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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

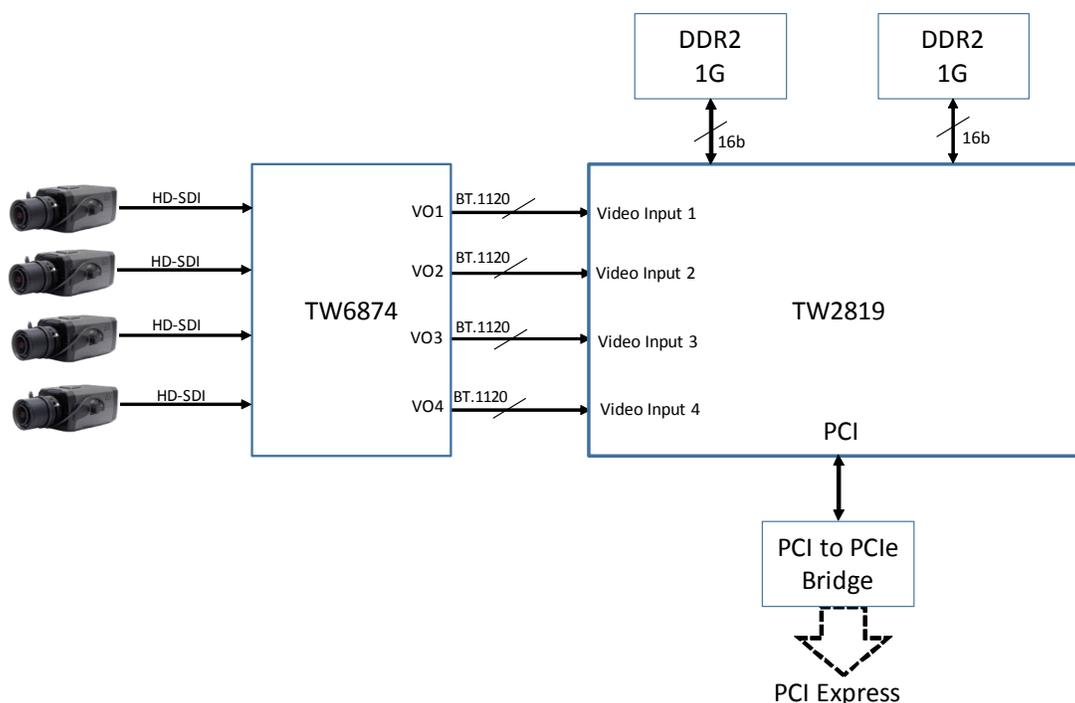


FIGURE 1. TYPICAL APPLICATION DIAGRAM

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

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