

Product Brief

Zoran Corporation
1390 Kifer Road
Sunnyvale, CA 94086-5305

Tel 408.523.6500
Fax 408.523.6501
www.zoran.com



Description

Zoran's CVE5 High Definition Video Encoder is a silicon-efficient, high-quality Intellectual Property Core for video IC designs requiring the high definition TV encoding. The CVE5 encodes YCrCb, 4:2:2 digital video into the 720p, 1080i, 480p and 576p standards. All NTSC, PAL, or SECAM TV standards for interlaced output are also supported. CVE5 supports vertical blanking interval (VBI) encoding, including closed caption, teletext, WSS and CGMS-A encoding. CVE5 also includes support for Macrovision 7.1.L1, the copy protec-

tion scheme used in DVD players and set-top boxes. Six separate output busses for Y, Composite, Chroma, and RGB provide for flexibility in connection and multiplexing to DACs.

The CVE5 High Definition video encoder greatly reduces the risk and time involved when integrating this function into an IC. When combined with Zoran's Frame-It-1 Video Deinterlacer, CVE5 provides an quality solution for high definition video encoding.

Features

- 720p, 1080i, 480p and 576p standards supported
- Encodes 4:2:2 YCrCb into all variations of NTSC, PAL or SECAM interlaced TV standards for interlaced output
- Simultaneous output of composite video, S-video and component video supported
- Dual chroma paths for optimal output of both composite video and S-Video component video
- CCIR 601, 604 and 656 and SMPTE 253 standards supported
- Macrovision 7.1.L1 copy protectionn
- 47-tap luma filter
- Outputs 10-bit data to DACs
- Vertical Blanking Interval (VBI) encoding support
- Closed caption, teletext, WSS & CGMS-A encoding
- Uniform 54 MHz clock; fully synchronous design
- 4x oversampling of luminance and chrominance filter for interlace mode
- 2x oversampling for progressive scan mode
- Process technology independent "softcore"

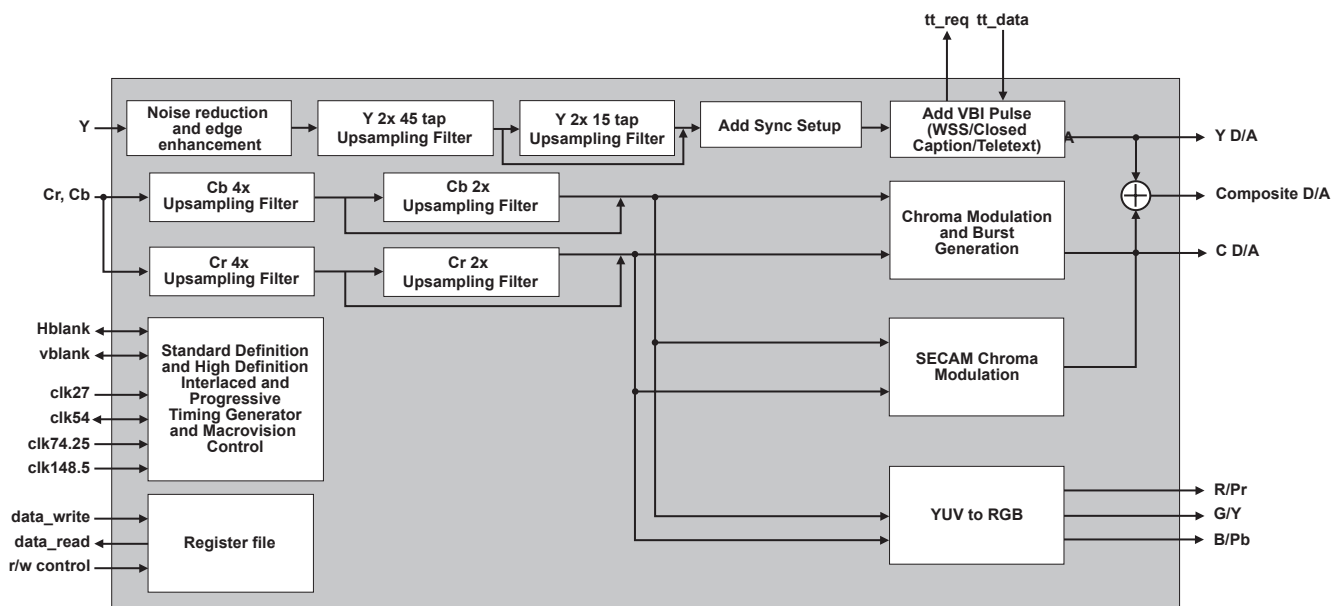
Integrated Circuit Applications

- HDTV
- Digital TV
- Set top box decoders
- Any system requiring high definition TV encoding

Deliverables

- Compilable Verilog source code
- Bit accurate, cycle accurate C model
- Synopsis synthesis scripts
- Test input files
- Documentation

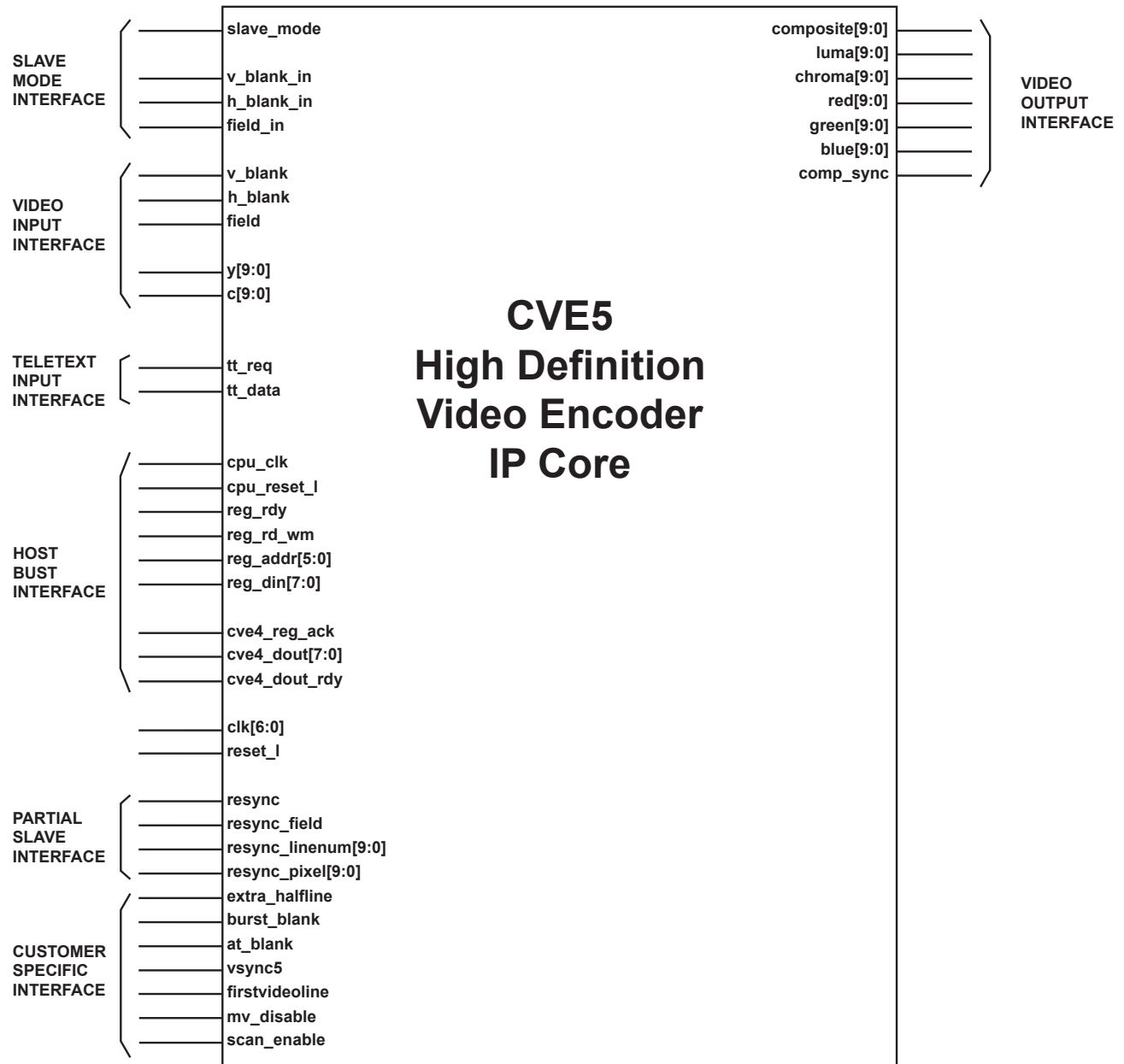
CVE5 High Definition Encoder Block Diagram



High Definition Video Encoder

Product Brief

CVE5 High Definition Encoder Logical Pinout



For more information, contact Zoran's Santa Clara office or the office nearest you:

Canada	China	Hong Kong	Israel	Japan	Korea	Taiwan
Zoran Toronto Lab Tel: (416) 690-3356 Fax: (416) 690-3363	Zoran China Office Tel: 86-755-83993777 Fax: 86-755-83220889	Zoran Asia Pacific Ltd. Tel: +852-2-620-5838 Fax: +852-2-620-5238	Zoran Microelectronics Ltd. Tel: +972-4-8545-777 Fax: +972-4-8551-551	Zoran Japan Office Tel: +81-03-5475-1051 Fax: +81-03-5475-1053	Zoran Korea Office Tel: +82-2-761-7471 Fax: +82-2-761-7472	Zoran Taiwan Office Tel: +886-2-2659-9797 Fax: +886-2-2659-9595