

AVC2510

Dual-Channel Video Format Converter

General Description

The AVC2510 dual-channel adaptive video converter accepts PC graphics and standard- and high-definition digital video inputs and processes them to produce high quality output in any desired standard video format up to 1080p resolution with a 60 Hz frame rate. The converter contains one full quality 3D video pipeline and one secondary pipeline that perform scaling to support picture-in-picture and thumbnail functions. Extensive noise reduction functions, adaptive contrast enhancement, edge enhancement and intelligent color remapping enables optimum image rendering. TwinD architecture provides simultaneous output of a primary high- or standard-definition data stream and a secondary standard-definition version of the same data stream, allowing easy implementation of a monitoring or time-shifting function.

Features

Inputs

- PC Graphics
 - Standard Definition
 - High-Definition
 - Video resolution: up to 1920x1080 @ 60p
 - Graphics resolution: up to 1600x1200 @ 60Hz (165MHz)
- Supports all digital input formats

Outputs

- 24-bit RGB 4:4:4, or
- 20-bit YCbCr 4:2:2, or
- 24-bit YCbCr 4:4:4
- Any desired standard format up to 1080p60, interlaced or progressive
- Secondary SD stream (8-bit ITU-R BT656)
- Configurable primary HD or SD output port

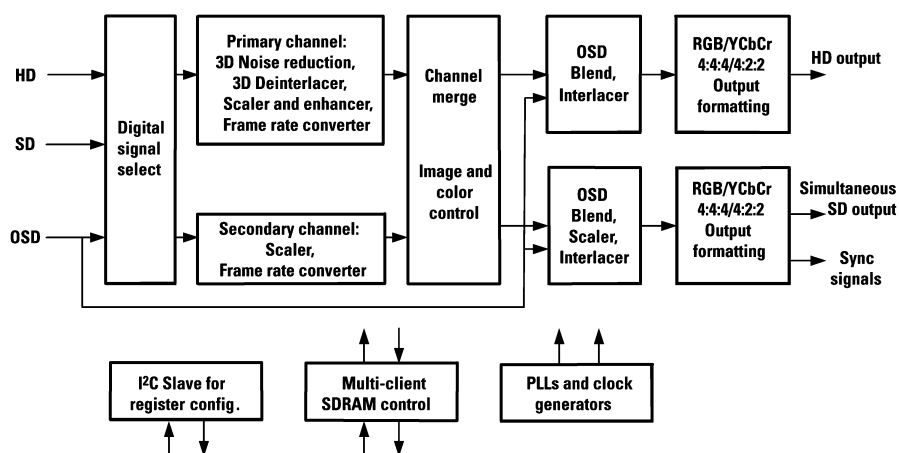
Functions

- 3D spatio-temporal noise reduction for SD and HD video
- 3D deinterlacing for SD and HD video
- Dual scalers for full, highly flexible PIP
- Horizontal luma and chroma edge enhancement
- Frame-rate-conversion
- Adaptive contrast enhancement
- Intelligent color remapping
- TwinD architecture provides secondary SD output supporting simultaneous monitoring or recording of any selected signal

Applications

DTVs, AV Receivers, Up-conversion DVD players, HD recorders

Simplified Block Diagram



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