

EVL2510

Evaluation System for AVC2510 Dual-Channel Video Format Converter

General Description

The EVL2510 is a system that enables evaluation of the key features of the AVC2510 dual-channel adaptive video converter. The system consists of a 2-channel analog input card with OSD generator, an HDMI input card, the main AVC2510 card, an output card and an optional CPU card. The system accepts a wide range of analog inputs including composite (CVBS), interlaced standard definition component or RGB (SCART), HD component, VGA as well the digital HDMI signal. The AVC2510 can take any two input signals, treating one as the primary channel and the other as the secondary PIP channel, merge them in PIP, PAP or POP formats, and then blend the OSD on top using alpha-blending. In the Primary channel, 3D noise reduction and deinterlacing are performed, followed by high order scaling. In the Secondary PIP channel the processing is in 2D, with similar functionality. Three types of output signals are supported: The Primary Output provides High Definition RGB/YPbPr (analog) and HDMI (480p, 576p, 720p, 1080i or 1080p/60) from any input source, up or down-converted. The Secondary output provides a simultaneous (CVBS and component) down-converted version of the same signal being output on the Primary channel.

Features

Inputs

- Standard Definition Video: 1 CVBS, 1 YPbPr, 1 SCART (CVBS + RGB with fast blank)
- High Definition Video: 1YPbPr, 480p, 720p and 1080i
- Graphics: RGBHV, up to 165 MHz

Primary Outputs

- Analog: RGBHV or YPbPr, up to 1080p/60
- Digital: 20/24-bit HDMI, up to 1080p/60

Auxiliary Output

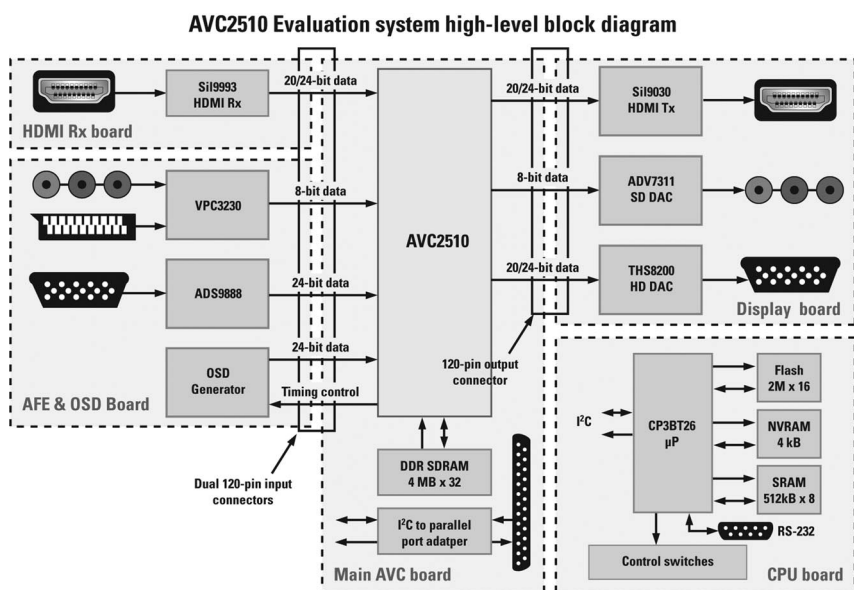
- Analog: CVSB, S-Video or YPbPr (480i, 576i), down-converted from primary output

Functions

The system includes the following functions

- CP3BT26 (CR16C) 16-bit RISC Microcontroller
- 2D Y/C separation and NTSC/PAL/SECAM decoding
- Main channel: 3D Noise Reduction and 3D Deinterlacing of both Standard and High Definition video (480i, 576i, 480p, 720p 1080i)
- PIP channel: Programmable high quality 2D scaling and aspect ratio conversion
- Adaptive contrast enhancement and intelligent color remapping
- Overlay/blending of external digital OSD

AVC2510 Evaluation System: High-Level Block Diagram



Notes

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