

ANALOG Video Signal Processor with Bitmap OSD, Dual HDMI Tx. and Video Encoder **Dual HDMI Tx, and Video Encoder**

ADV8003 Data Sheet

FEATURES

Video signal processor

Full 12-bit, 4:4:4 YUV internal processing

Motion adaptive de-interlacing with ultralow angle interpolation

Multiple video processing paths

Upscaling to 4k × 2k (ADV8003KBCZ-8x models only)

Aspect ratio conversion/panorama scaling

Cadence detection for the recovery of original frames from film-based content

Dual video scalers enable simultaneous output of multiple different resolutions

Sharpness and detail enhancement

Noise reduction to reduce random, mosquito, and block

Frame rate converter

Support for up to 3 simultaneous video streams, including picture-in-picture (PiP) support

On-screen display (OSD)

Internally generated bitmap-based OSD allowing overlay on one or more video outputs

Overlay on 3D video formats

Dedicated OSD scaler

Alpha blending of OSD data on video data

Disturbance free blending of OSD on either of 2 zones

Option of external OSD

Easy to use software tool for developing OSDs

HDMI transmitters

Dual HDMI transmitters enabling splitter capability

Content type bits

CEC 1.4 controller

Audio return channel (ARC) support

Support of standard S/PDIF for stereo LPCM compressed audio up to 192 kHz

6-channel uncompressed LPCM I2S audio up to 192 kHz

6-channel direct stream digital (DSD) audio inputs

Noise Shaped Video (NSV) six-DAC video encoder

Six 12-bit NSV video DACs

Multiformat video output support

Composite (CVBS), S-Video (Y/C), and Component YPrPb (SD, ED, and HD)

Rovi Rev. 7.1.L1 (SD) and Rev. 1.4 (ED) compliant

Simultaneous SD and ED/HD operation

Professional video mode

Capability to output up to 36-bit TTL data

APPLICATIONS

High end A/V receivers

Upconverting DVD players/recorders

Blu-ray players/recorders

Set-top boxes

Video conferencing

Standalone video processors

HDMI splitters

FUNCTIONAL BLOCK DIAGRAM

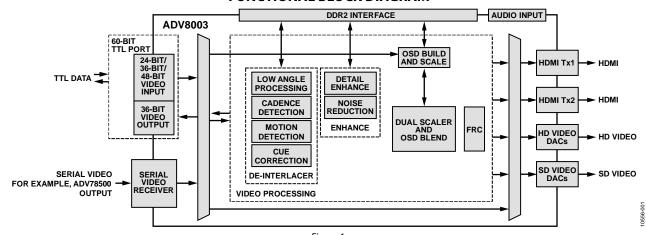


Figure 1.



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