

NatureVue[™] Video Signal Processor with Bitmap OSD, Dual HDMI Tx, and Encoder

Preliminary Technical Data

ADV8005

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 with up to 3 simultaneous video streams including picture-in-picture (PiP) support

Up- and down-scaling to/from $4k \times 2k$

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 for random, mosquito, and block noise

Frame rate converter

Video metrics readbacks to enable correct phase and frequency selection for graphics inputs

On-screen display (OSD)

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

Overlay on 3D and 4k x 2k video formats

Dedicated OSD scaler

Alpha blending of OSD data on video data

Disturbance free blending of OSD on either of 2 zones

Support for external OSD

Easy to use software tool for developing OSDs

HDMI transmitters

Dual 4k x 2k 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 supporting multiformat video 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 features

Capability to output up to 36-bit TTL data
Ability to synchronize output video to externally applied reference sync signals

APPLICATIONS

High end A/V receivers
Upconverting DVD players/recorders
Video conferencing and distribution
Standalone video processors
HDMI splitters
Video walls

FUNCTIONAL BLOCK DIAGRAM

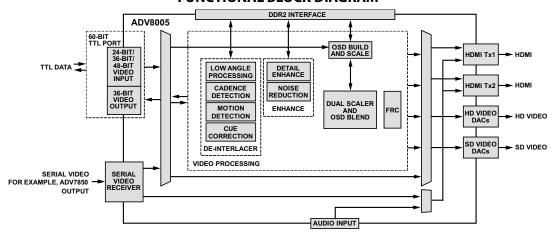


Figure 1.





Rev. PrB Document Feedback

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NOTES

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