

FEATURES

- Dual HDMI 1.4 fast switching receiver
- 170 MHz video and graphics digitizer
- 3D comb filter video decoder
- SCART fast blank support
- Adaptive HDMI equalizer
- Integrated CEC controller
- HDMI repeater support
- Advanced VBI data slicer
- 256-ball, 17 mm × 17 mm BGA package
- 2:1 HDMI 1.4 225 MHz receiver
 - Xpressview™ fast switching of HDMI ports
 - 3D video format support including frame packing 1080p
 - 24 Hz, 720p 50 Hz, 720p 60 Hz
 - Full colorimetry support including sYCC601, Adobe RGB, Adobe YCC 601
 - 36-/30-bit Deep Color and 24-bit color support
 - HDCP 1.4 support with internal HDCP keys
 - 5 V detect and hot plug assert for each HDMI port
 - HDMI audio support including HBR and DSD
 - Advanced audio mute feature
 - Flexible digital audio output interfaces
 - Supports up to 5 S/PDIF outputs
 - Supports up to 4 I²S outputs
- Video and graphics digitizer
 - Four 170 MHz, 12-bit ADCs
 - 12-channel analog input mux
 - 525i-/625i-component analog input
 - 525p-/625p-component progressive scan support
 - 720p-/1080i-/1080p-component HDTV support
 - Low refresh rates (24 Hz/25 Hz/30 Hz) support for 720p/1080p
 - Digitizes RGB graphics up to 1600 × 1200 at 60 Hz (UXGA)
- 3D video decoder
 - NTSC/PAL/SECAM color standards support
 - NTSC/PAL 2D/3D motion detecting comb filter
 - Advanced time-base correction (TBC) with frame synchronization
 - Interlaced-to-progressive conversion for 525i and 625i
 - IF compensation filters
 - Vertical peaking and horizontal peaking filters
 - Robust synchronization extraction for poor video source

General

- Highly flexible 36-bit pixel output interface
- Internal EDID RAM for HDMI and graphics
- Dual STDI (standard identification) function support
- Any-to-any, 3 × 3 color space conversion (CSC) matrix
- 2 programmable interrupt request output pins
- Simultaneous analog processing and HDMI monitoring

APPLICATIONS

- Advanced TVs
 - PDP HDTVs
 - LCD TVs (HDTV ready)
 - LCD/DLP® rear projection HDTVs
 - CRT HDTVs
 - LCoS™ HDTVs
- AVR video receivers
- LCD/DLP front projectors
- HDTV STBs with PVR
- Projectors

FUNCTIONAL BLOCK DIAGRAM

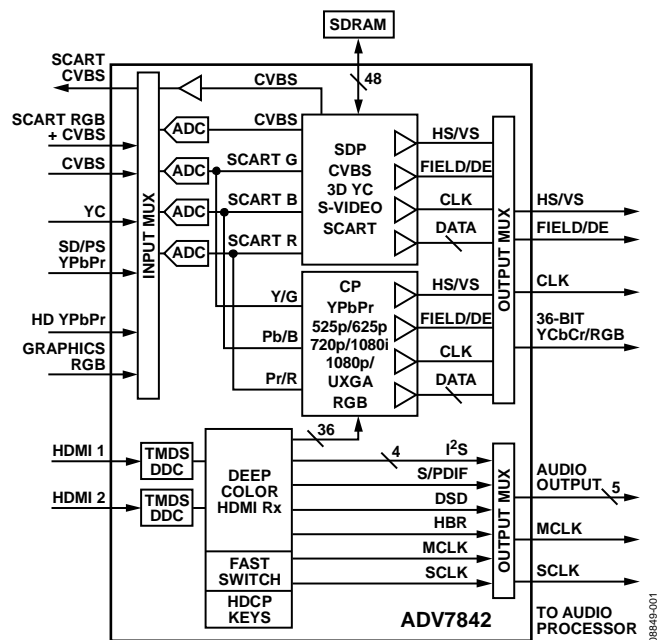


Figure 1.

For more information on the ADV7842, email Analog Devices, Inc., at ATV_VIDEORX_Apps@analog.com.

ADV7842

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