

FEATURES

Quad HDMI® 1.4 fast switching receiver

HDMI support

Audio return channel (ARC)

3D TV support

Content type bits

CEC 1.4-compatible

Extended colorimetry

HDMI 225 MHz receiver

Xpressview fast switching of HDMI ports

2 ARC interfaces for ARC support

SPDIF interface for ARC support

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

Adaptive HDMI equalizer

Integrated CEC controller

HDMI repeater support

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 (24/25/30 Hz) support for 720p/1080p

Digitizes RGB graphics up to 1600 × 1200 at 60 Hz (UXGA)

SCART fast blank support

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

Advanced VBI data slicer

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

LCoS™ HDTVs

AVR video receivers

HDTV STBs with PVR

Projectors

FUNCTIONAL BLOCK DIAGRAM

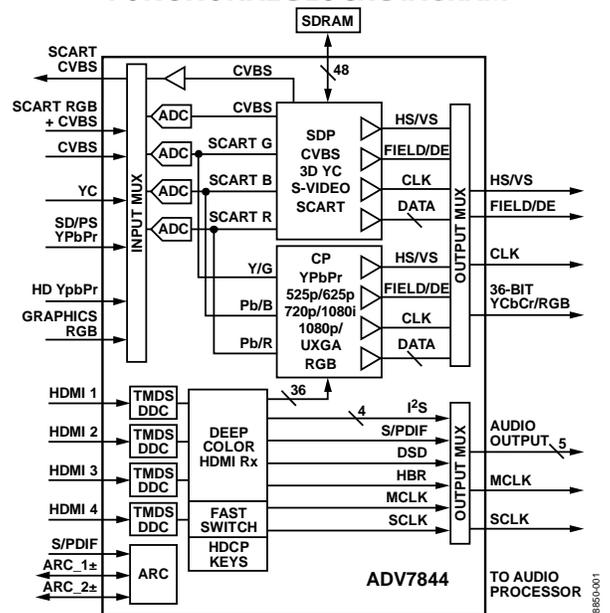


Figure 1.

For more information on the ADV7844, contact your local FAE or sales office.

Advantiv
Advanced Television Solutions
by Analog Devices

Xpressview
Fast Switching Technology
by Analog Devices

Rev. SpA

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NOTES

I²C refers to a communications protocol originally developed by Phillips Semiconductors (now NXP Semiconductors).
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