

Multiformat SDTV Video Decoder with Fast Switch Overlay Support

Manufacturers	Analog Devices, Inc
Package/Case	LQFP-80
Product Type	Interface - Encoders, Decoders, Converters
RoHS	Pb-free Halide free
Lifecycle	



Images are for reference only

Please submit RFQ for ADV7184BSTZ or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The ADV7184 integrated video decoder automatically detects and converts standard analog baseband television signals compatible with worldwide NTSC, PAL, and SECAM standards into 4:2:2 component video data compatible with 16- or 8-bit CCIR 601/CCIR 656.

The advanced, highly flexible digital output interface enables performance video decoding and conversion in line-locked, clock-based systems. This makes the device ideally suited for a broad range of applications with diverse analog video characteristics, including tape-based sources, broadcast sources, security and surveillance cameras, and professional systems.

The accurate 10-bit ADC provides professional quality video performance and is unmatched. This allows true 8-bit resolution in the 8-bit output mode.

The 12 analog input channels accept standard composite, S-video, and component video signals in an extensive number of combinations.

AGC and clamp-restore circuitry allow an input video signal peak-to-peak range of 0.5 V to 1.6 V. Alternatively, these can be bypassed for manual settings.

The fixed 54 MHz clocking of the ADCs and datapath for all modes allows very precise, accurate sampling and digital filtering. The line-locked clock output allows the output data rate, timing signals, and output clock signals to be synchronous, asynchronous, or line locked even with $\pm 5\%$ variation in line length. The output control signals allow glueless interface connections in most applications. The ADV7184 modes are set up over a 2-wire, serial, bidirectional port (I2C compatible).

SCART and overlay functionality are enabled by the ability of the ADV7184 to process CVBS and standard definition RGB signals simultaneously. Signal mixing is controlled by the fast blank pin. The ADV7184 is fabricated in a 3.3 V CMOS process. Its monolithic CMOS construction ensures greater functionality with lower power dissipation. It is packaged in a small, Pb-free, 80-lead LQFP.

Features

Multiformat video decoder supports NTSC (J/M/4.43), PAL (B/D/G/H/I/M/N), SECAM

Integrates four 54 MHz, 10-bit ADCs

SCART fast blank support

Clocked from a single 28.63636 MHz crystal

Line-locked clock-compatible (LLC)

Adaptive Digital Line Length Tracking (ADLLT™), signal processing, and enhanced FIFO management give mini-TBC functionality

5-line adaptive comb filters

Proprietary architecture for locking to weak, noisy, and unstable video sources such as VCRs and tuners

Subcarrier frequency lock and status information output

Integrated automatic gain control (AGC) with adaptive peak white mode

Macrovision® copy protection detection

Chroma transient improvement (CTI)

Application

High end DVD recorders

Video projectors

HDD-based
PVRs/DVDRs

LCD TVs

Set-top boxes

Security systems

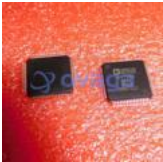
Digital televisions

AVR receivers





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