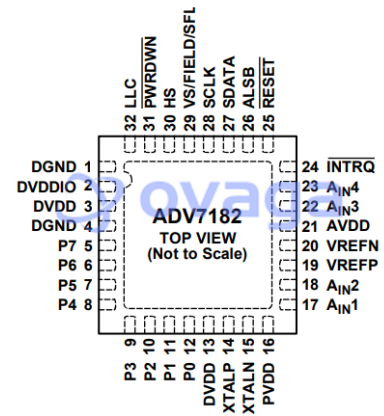


Video Decoder 1 ADC 10bit 32-Pin LFCSP EP Tray

Manufacturers	<a href="#">Analog Devices, Inc</a>
Package/Case	LFCSP-32
Product Type	Audio & Video Products ; Video Decoders
RoHS	Pb-free Halide free
Lifecycle	



Images are for reference only

Please submit RFQ for ADV7182BCPZ or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

## General Description

External HS, VS, and FIELD signals can provide timing references for LCD controllers and other video ASICs. The accurate 10-bit analog-to-digital conversion provides professional quality video performance for consumer applications with true 8-bit data resolution. The analog video inputs accept both single-ended, pseudo-differential, and fully differential composite video signals as well as S-Video and YPbPr video signals, supporting a wide range of consumer and automotive video sources.

The ADV7182 along with an external resistor divider provide a common-mode input range of 4 V, enabling the removal of large signal, common-mode transients present on the video lines. Common-mode rejection (CMR) values of up to 80 dB can be achieved without the need for external amplifier circuitry.

The AGC and clamp restore circuitry allow an input video signal peak-to-peak range to 1.0 V at the analog video input pin of the ADV7182. Alternatively, these can be bypassed for manual settings.

The ADV7182 can be protected from short-to-battery (STB) events with standard ac coupling capacitors.

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  $\pm 5\%$  line length variation.

The ADV7182 is programmed via a two-wire, serial bidirectional port (I2C<sup>®</sup> compatible) and is fabricated in a 1.8 V CMOS process. Its monolithic CMOS construction ensures greater functionality with lower power dissipation. The LFCSP package options make the decoder ideal for space-constrained portable applications.

The ADV7182 is a versatile one-chip multiformat video decoder that automatically detects PAL, NTSC, and SECAM standards in the form of composite, S-Video, and component video. The ADV7182 can receive composite signals in either single-ended or differential modes. This makes the ADV7182 ideal for automotive applications.

The ADV7182 converts these analog video formats into a digital 8-bit ITU-R BT.656 video stream.

The digital video output stream of the ADV7182 interfaces easily to a wide range of MPEG encoders, codecs, mobile video processors, and Analog Devices, Inc., digital video encoders, such as the ADV7391. External HS, VS, and FIELD signals provide timing references for LCD controllers and other video ASICs.

## APPLICATIONS

Automotive infotainment

DVRs for video security

Media players

## Features

Worldwide NTSC/PAL/SECAM color demodulation support

One 10-bit analog-to-digital converter (ADC), 4× oversampling for CVBS, 2× oversampling for Y/C mode, and 2× oversampling for YPrPb (per channel)

Four analog video input channels with on-chip antialiasing filter

CVBS (composite), Y/C (S-Video), and YPrPb (component) video input support

Fully differential, pseudo differential, and single-ended CVBS video input support

Up to 4 V common-mode input range solution

Excellent common-mode rejection capabilities

Five-line adaptive comb filters and CTI/DNR video enhancement

TBC functionality provided by adaptive digital line length tracking (ADLLT), signal processing, and enhanced first in, first out (FIFO) management

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

Video fast switch capability

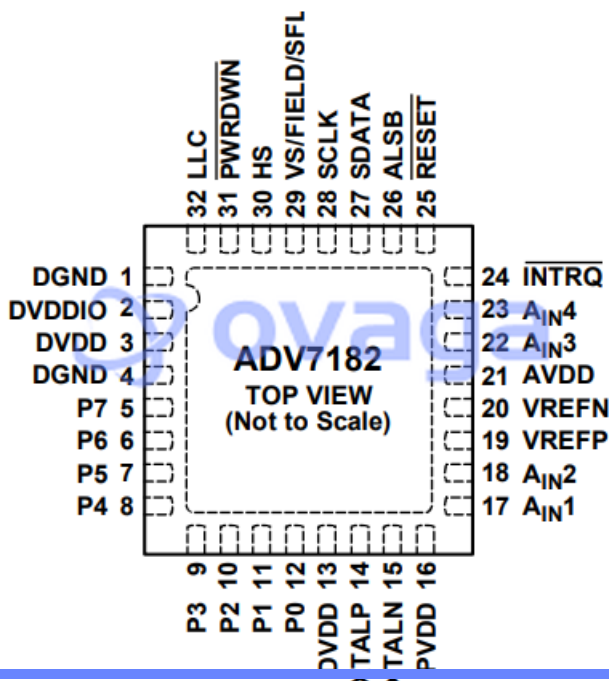
See data sheet for additional features

## Application

Automotive  
infotainment

DVRs for video  
security

Media players



## FUNCTIONAL BLOCK DIAGRAM

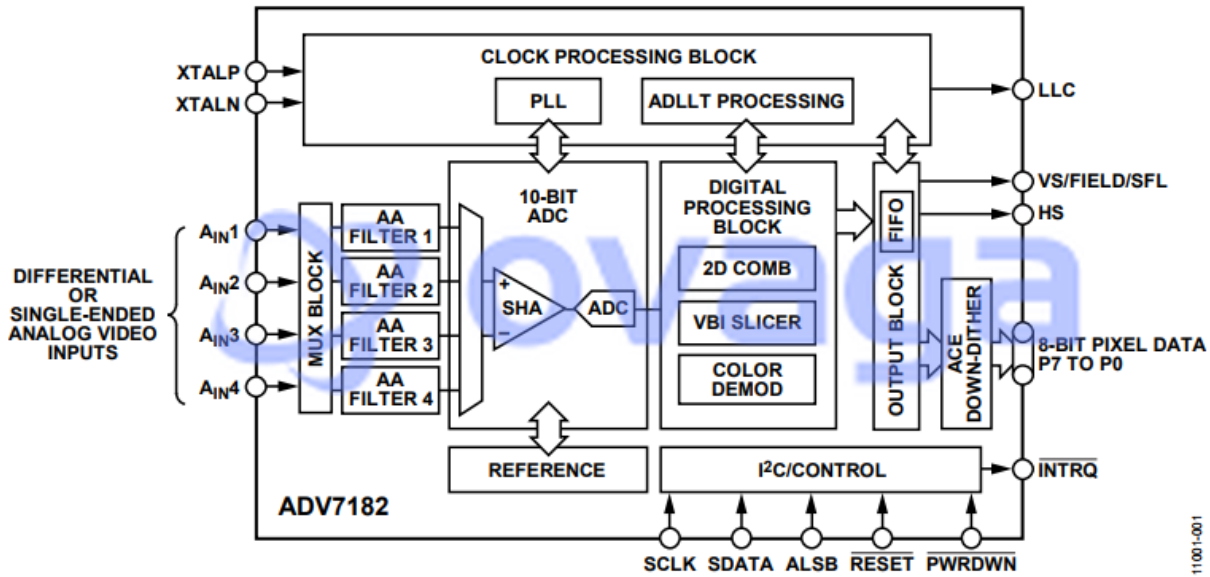


Figure 1.

11001-001

## Related Products



[ADAU1452WBCPZ](#)

Analog Devices, Inc  
LFCSP72



[ADG884BCPZ](#)

Analog Devices, Inc  
QFN-10



[AD1851RZ](#)

Analog Devices, Inc  
SOP-16



[AD73322ARZ](#)

Analog Devices, Inc  
SOP-28



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QFN



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LQFP-100



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QFP100