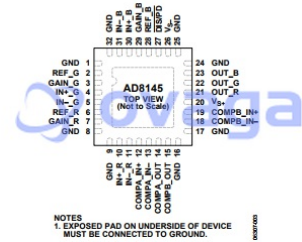


High Speed, Triple Differential Receiver with Comparators

Manufacturers	Analog Devices, Inc
Package/Case	LFCSP-VQ-32
Product Type	Video Amplifiers & Analog Video Functions ; CAT-5 Video Receivers
RoHS	Rohs
Lifecycle	



Images are for reference only

Please submit RFQ for AD8145YCPZ-RL or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours. [RFQ](#)

General Description

The AD8145 is a triple, low cost, differential-to-single-ended receiver specifically designed for receiving red-green-blue (RGB) video signals over twisted pair cable or differential printed circuit board (PCB) traces. It can also be used to receive any type of analog signal or high speed data transmission. Two auxiliary comparators with hysteresis are provided that can be used to decode video sync signals, which are encoded on the received common-mode voltages, to receive digital signals or as general-purpose comparators. The AD8145 can be used in conjunction with the AD8133 or AD8134 triple differential drivers to provide a complete low cost solution for RGB over Category 5 UTP cable applications, including KVM.

The excellent common-mode rejection (69 dB @ 10 MHz) of the AD8145 allows for the use of low cost, unshielded twisted pair cables in noisy environments.

The AD8145 can be configured for a differential-to-single-ended gain of 1 or 2 by connecting the GAIN_x pin of each channel to its respective output (= 2), which is normally grounded.

A REF_x input is provided on each channel that allows designers to level shift the output signals.

The AD8145W is the automotive grade version that is qualified per the AEC-Q100 for use in automotive applications. See the Automotive Products section for more details.

The AD8145 is available in a 5 mm × 5 mm, 32-lead LFCSP and is rated to work over the extended industrial temperature range of -40°C to +105°C.

Features

High speed: 500 MHz, 2000 V/ μ s @ = 2 V p-p

0.1 dB flatness out to 75 MHz

High CMRR: 69 dB @ 10 MHz

High differential input impedance: 1 M Ω

Wide input common-mode range: ± 3.5 V (± 5 V supplies)

On-chip, gain setting resistors can be configured for gain of 1 or 2

Fast settling: 15 ns to 0.1% @ 2 V p-p

Low input referred noise: 13 nV/ $\sqrt{\text{Hz}}$

Disable feature

Small packaging: 32-lead, 5 mm \times 5 mm LFCSP

AEC-Q10 qualified (AD8145W)

Application

RGB video receivers

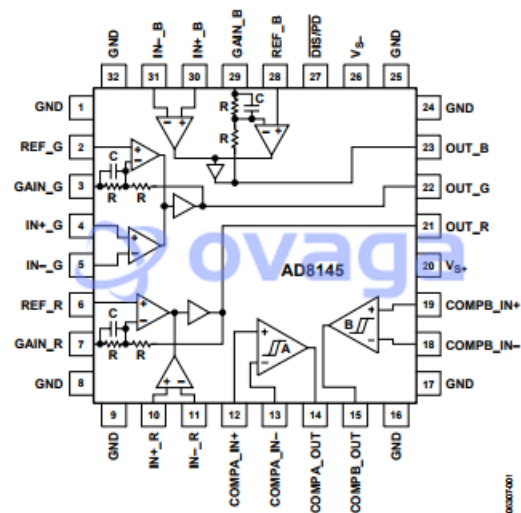
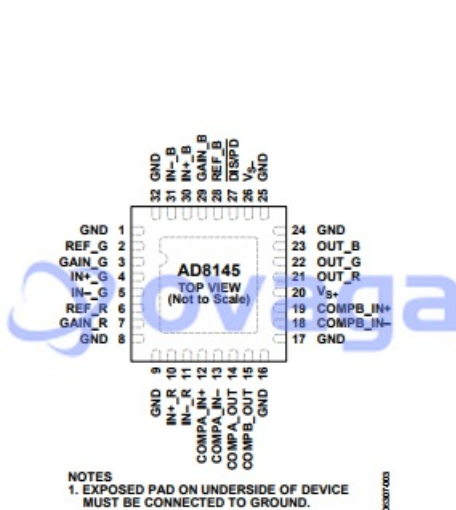
YPbPr video receivers

Keyboard, video, mouse (KVM)

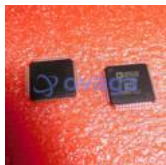
Unshielded twisted pair (UTP) receivers

Automotive driver assistance (AD8145W)

Automotive Infotainment (AD8145W)



Related Products



[ADV7181CBSTZ](#)
Analog Devices, Inc
LQFP-64



[AD724JR](#)
Analog Devices, Inc
SOIC-16



[AD8170AR](#)
Analog Devices, Inc
SOP8



[ADV7393BCPZ](#)
Analog Devices, Inc
LFCSP-VQ-40



[ADV7391WBCPZ](#)

Analog Devices, Inc
LFSCP-3



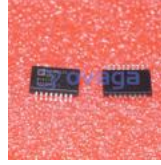
[ADV7390BCPZ](#)

Analog Devices, Inc
QFN32



[ADV7341BSTZ](#)

Analog Devices, Inc
LQFP-64



[ADUM4160BRIZ](#)

Analog Devices, Inc
SOIC-16