

AD684SQ

Sample and Hold 4-CH 1us 16-Pin CDIP Tube

Manufacturer:	Analog Devices, Inc.
Package/Case:	CDIP16
Product Type:	Amplifier ICs
Lifecycle:	Active



General Description

The AD684 is a monolithic quad sample-and-hold amplifier (SHA). It features four complete sampling channels, each controlled by an independent hold command. Each SHA is complete with an internal hold capacitor. The high accuracy SHA channels are self-contained and require no external components or adjustments. The AD684 is manufactured on a BiMOS process which provides a merger of high performance bipolar circuitry and low power CMOS logic. The AD684 is ideal for high performance, multichannel data acquisition systems. Each SHA channel can acquire a signal in less than 1 μ s and retain the held value with a droop rate of less than 0.01 μ V/ μ s. Excellent linearity and ac performance make the AD684 an ideal front end for high speed 12- and 14-bit ADCs.

The AD684 has a self-correcting architecture that minimizes hold mode errors and insures accuracy over temperature. Each channel of the AD684 is capable of sourcing 5 mA and incorporates output short circuit protection.

The AD684 is specified for three temperature ranges. The J grade device is specified for operation from 0 to $+70^{\circ}$ C, the A grade from -40° C to $+85^{\circ}$ C and the S grade from -55° C to $+125^{\circ}$ C.

Key Features

Four Matched Sample-and-Hold Amplifiers

Independent Inputs, Outputs and Control Pins

500 μs Hold Mode Settling

1 µs Maximum Acquisition Time to 0.01%

Low Droop Rate: 0.01 $\mu V\!/\!\mu s$

Internal Hold Capacitors

75 ps Maximum Aperture Jitter

Low Power Dissipation: 430 mW

0.3" Skinny DIP Package

MIL-STD-883 Compliant Versions Available





Recommended For You

AD8309ARUZ

Analog Devices, Inc TSSOP16

AD8221ARZ Analog Devices, Inc SOP8

ADA4930-2YCPZ-R7

Analog Devices, Inc

LFCSP24

AD633JRZ

Analog Devices, Inc SOP8

ADCMP600BKSZ-R2

Analog Devices, Inc SC70-5

AD524BDZ

Analog Devices, Inc CDIP-16

AD627BRZ Analog Devices, Inc SOP8

AD8034ARZ Analog Devices, Inc SOP8

AD632AH Analog Devices, Inc CAN10

AD620BN Analog Devices, Inc DIP8 AD8221BR

Analog Devices, Inc SOP-8

AD622ANZ

Analog Devices, Inc DIP8

AD8561ARZ

Analog Devices, Inc SOP8

AD8422BRZ Analog Devices, Inc SOP8

AD620BR Analog Devices, Inc SOP