


DAC 2-CH R-2R 16-bit 16-Pin SOIC W Tube

Manufacturer:	Analog Devices, Inc
Package/Case:	SOP16
Product Type:	Data Conversion ICs
RoHS:	RoHS Compliant/Lead free 
Lifecycle:	Active



Images are for reference only

[Inquiry](#)

General Description

The AD1866 is a complete dual 16-bit DAC offering excellent performance while requiring a single +5 V power supply. It is fabricated on Analog Devices' ABCMOS wafer fabrication process. The monolithic chip includes CMOS logic elements, bipolar and MOS linear elements and laser trimmed, thinfilm resistor elements. Careful design and layout techniques have resulted in low distortion, low noise, high channel separation and low power dissipation.

The DACs on the AD1866 chip employ a partially segmented architecture. The first three MSBs of each DAC are segmented into 7 elements. The 13 LSBs are produced using standard R-2R techniques. The segments and R-2R resistors are laser trimmed to provide extremely low total harmonic distortion. The AD1866 requires no deglitcher or trimming circuitry.

Each DAC is equipped with a high performance output amplifier. These amplifiers achieve fast settling and high slew rate, producing ± 1 V signals at load currents up to ± 1 mA. The buffered output signal range is 1.5 V to 3.5 V. The 2.5 V reference voltages eliminate the need for "false ground" networks.

A versatile digital interface allows the AD1866 to be directly connected to all digital filter chips. Fast CMOS logic elements allow for an input clock rate of up to 16 MHz. This allows for operation at 2x, 4x, 8x, or 16x the sampling frequency (where >

The AD1866 operates on +5 V power supplies. The digital supply, VL, can be separated from the analog supply, VS, for reduced digital feedthrough. Separate analog and digital ground pins are also provided. In systems employing a single +5 volt power supply, VL and VS should be connected together. In battery operated systems, operation will continue even with reduced supply voltage. Typically, the AD1866 dissipates 50 mW.

The AD1866 is packaged in either a 16-pin plastic DIP or a 16-pin plastic SOIC package. Operation is guaranteed over the temperature range of -35°C to +85°C and over the voltage supply range of 4.75 V to 5.25 V.

Key Features

Dual Serial Input, Voltage Output DACs

Single +5 Volt Supply

0.005% THD+N

Low Power - 50 mW

115 dB Channel Separation

Operation at 8x Oversampling

16-Pin Plastic DIP or SOIC Package

Application

Multimedia Workstations

PC Audio Add-In Boards

Portable CD and DAT Players

Automotive CD and DAT Players

Noise Cancellation

Recommended For You

ADAU1701JSTZ

Analog Devices, Inc
QFP48

AD1890JP

Analog Devices, Inc
PLCC

AD1974WBSTZ

Analog Devices, Inc
LQFP-48

AD1940YSTZ

Analog Devices, Inc
QFP

AD1895AYRSZ

Analog Devices, Inc
SSOP28

AD2428WCCSZ-RL

Analog Devices, Inc
LFCSP32

ADAU7002ACBZ-R7

Analog Devices, Inc
WLCSP8

AD1955ARSZ

Analog Devices, Inc
SSOP28

ADAU1701JSTZ-RL

Analog Devices, Inc
LQFP48

AD1896AYRSZ

Analog Devices, Inc
SSOP28

AD1852JRSZ

Analog Devices, Inc
SSOP28

ADAU1401AWBSTZ

Analog Devices, Inc
LQFP48

ADAU1962AWBSTZ

Analog Devices, Inc
LQFP-80

ADAU1966WBSTZ

Analog Devices, Inc
QFP80

AD1974YSTZ

Analog Devices, Inc
QFP