


DAC 1-CH R-2R 12-bit 20-Pin PDIP N Tube

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



Images are for reference only

[Inquiry](#)

General Description

The DAC312 series of 12-bit multiplying digital-to-analog converters provide high speed with guaranteed performance to 0.012% differential nonlinearity over the full commercial operating temperature range.

The DAC312 combines a 9-bit master D/A converter with a 3-bit (MSBs) segment generator to form an accurate 12-bit D/A converter at low cost. This technique guarantees a very uniform step size (up to $\pm 1/2$ LSB from the ideal), monotonicity to 12-bits and integral nonlinearity to 0.05% at its differential current outputs. In order to provide the same performance with a 12-bit R-2R ladder design, an integral nonlinearity over temperature of 1/2 LSB (0.012%) would be required.

The 250 ns settling time with low glitch energy and low power consumption are achieved by careful attention to the circuit design and stringent process controls. Direct interface with all popular logic families is achieved through the logic threshold terminal.

High compliance and low drift characteristics (as low as 10 ppm/ $^{\circ}$ C) are also features of the DAC312 along with an excellent power supply rejection ratio of $\pm 0.001\%$ FS/ Δ V. Operating over a power supply range of +5/-11 V to ± 18 V the device consumes 225 mW at the lower supply voltages with an absolute maximum dissipation of 375 mW at the higher supply levels.

With their guaranteed specifications, single chip reliability and low cost, the DAC312 device makes excellent building blocks for A/D converters, data acquisition systems, video display drivers, programmable test equipment and other applications where low power consumption and complete input/output versatility are required.

Key Features

Nonlinearity - 0.05%

Circuit interface to TTL, CMOS, ECL, PMOS/NMOS

Industry standard AM6012 pinout



Recommended For You

DAC8562FSZ

Analog Devices, Inc

SOP20

DAC08AQ

Analog Devices, Inc

DIP

DAC08EQ

Analog Devices, Inc

CDIP16

DAC8800FPZ

Analog Devices, Inc

20-LeadPDIP

DAC08ESZ

Analog Devices, Inc

SOP16

DAC08EPZ

Analog Devices, Inc

DC

ADAQ7980BCCZ

Analog Devices, Inc

LGA-24

DAC312FR

Analog Devices, Inc

DIP

ADAQ4003BBCZ

Analog Devices, Inc

BGA

ADA4350ARUZ

Analog Devices, Inc

TSSOP28

DAC08CSZ

Analog Devices, Inc

SOP16

DAC8043FPZ

Analog Devices, Inc

DIP8

ADAQ4001BBCZ-RL13

Analog Devices, Inc

BGA49

DAC8043AESZ

Analog Devices, Inc

SOP8

ADAL6110-16BCPZ

Analog Devices, Inc

LFCSP-48