
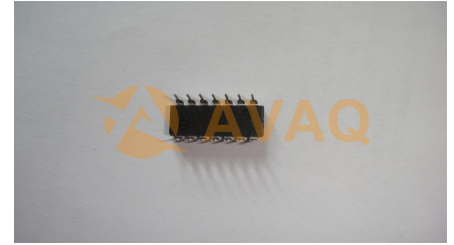


Analog Multiplier/Divider 4Bit 14-Pin PDIP N Tube

Manufacturer:	Analog Devices, Inc
Package/Case:	DIP14
Product Type:	Amplifier ICs
RoHS:	RoHS Compliant/Lead free 
Lifecycle:	Active



Images are for reference only

[Inquiry](#)

General Description

The AD734 is an accurate high speed, four-quadrant analog multiplier that is pin-compatible with the industry-standard AD534 and provides the transfer function $W = XY/U$. The AD734 provides a low-impedance voltage output with a full-power (20 V pk-pk) bandwidth of 10 MHz. Total static error (scaling, offsets, and nonlinearities combined) is 0.1% of full scale. Distortion is typically less than -80 dBc and guaranteed. The low capacitance X, Y and Z inputs are fully differential. In most applications, no external components are required to define the function.

The internal scaling (denominator) voltage U is 10 V, derived from a buried-Zener voltage reference. A new feature provides the option of substituting an external denominator voltage, allowing the use of the AD734 as a two-quadrant divider with a 1000:1 denominator range and a signal bandwidth that remains 10 MHz to a gain of 20 dB, 2 MHz at a gain of 40 dB and 200 kHz at a gain of 60 dB, for a gain-bandwidth product of 200 MHz.

The advanced performance of the AD734 is achieved by a combination of new circuit techniques, the use of a high speed complementary bipolar process and a novel approach to laser-trimming based on ac signals rather than the customary dc methods. The wide bandwidth (>40 MHz) of the AD734's input stages and the 200 MHz gain-bandwidth product of the multiplier core allow the AD734 to be used as a low distortion Modulator, Demodulator Wideband Gain Control, RMS-DC Conversion Voltage-Controlled Amplifiers, Oscillators, and Filters Demodulator with 40 MHz Input Bandwidth demodulator with input frequencies as high as 40 MHz as long as the desired output frequency is less than 10 MHz.

The AD734AQ and AD734BQ are specified for the industrial temperature range of -40°C to +85°C and come in a 14-pin ceramic DIP. The AD734SQ/883B, available processed to MIL-STD- 883B for the military range of -55°C to +125°C, is available in a 14-pin ceramic DIP.

Key Features

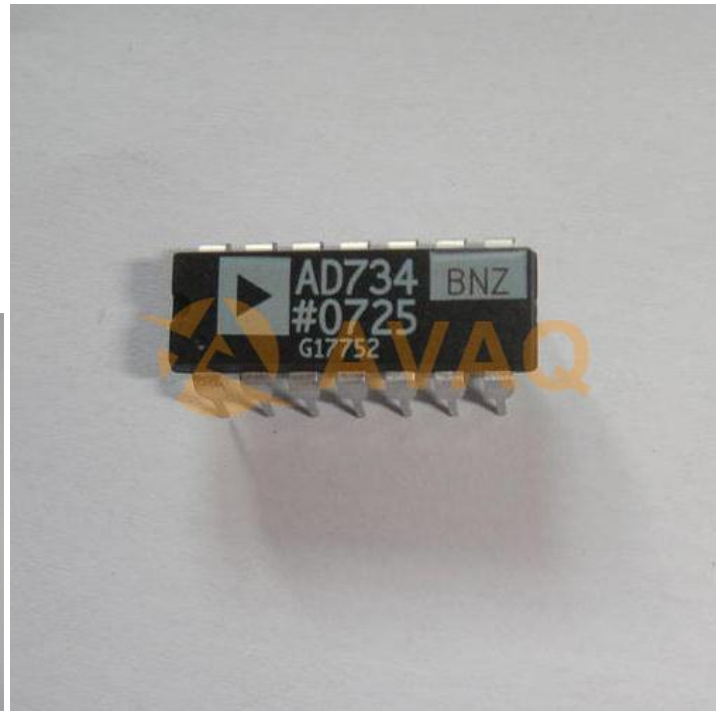
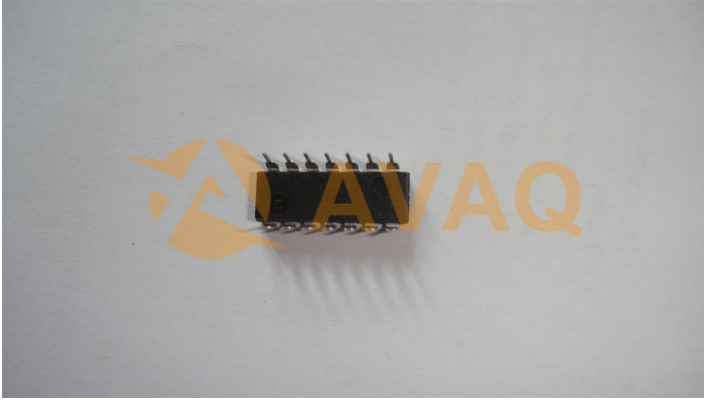
High Accuracy 0.1% Typical Error

High Speed 10 MHz Full-Power Bandwidth 450 V/ μ s Slew Rate 200 ns Settling to 0.1% at Full Power

Direct Division Mode 2 MHz BW at Gain of 100

Low Distortion -80 dBc from Any Input Third-Order IMD Typically -75 dBc at 10 MHz

Low Noise 94 dB SNR, 10 Hz to 20 kHz 70 dB SNR, 10 Hz to 10 MHz



Recommended For You

AD632SH

Analog Devices, Inc

CAN10

AD834AQ

Analog Devices, Inc

CDIP8

AD632TH

Analog Devices, Inc

CAN

AD734AN

Analog Devices, Inc

DIP

AD734BN

Analog Devices, Inc

DIP14

AD734ANZ

Analog Devices, Inc

DIP14

AD835AR

Analog Devices, Inc

SOP8

AD734AQ

Analog Devices, Inc

DIP

AD734BQ

Analog Devices, Inc

CDIP

AD9500BP

Analog Devices, Inc

PLCC

AD632AD

Analog Devices, Inc

AUDIP

AD835ARZ

Analog Devices, Inc

SOP8

AD632ADZ

Analog Devices, Inc

14-CDIP

AD835AN

Analog Devices, Inc

DIP

ADG3308BCPZ-REEL7

Analog Devices, Inc

LFCS-20