


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

<b>Manufacturer:</b>	<a href="#">Analog Devices, Inc</a>
<b>Package/Case:</b>	DIP14
<b>Product Type:</b>	Amplifier ICs
<b>RoHS:</b>	RoHS Compliant/Lead free 
<b>Lifecycle:</b>	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

10MHz Full power bandwidth

200ns Settling to 0.1% at full power

Low distortion

Low noise



## 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

### **AD734BNZ**

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  
LFCSP-20