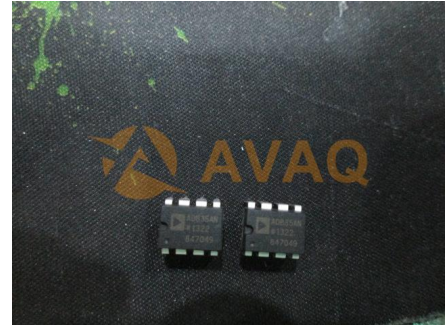


## Analog Multiplier 4Bit 8-Pin PDIP N

<b>Manufacturer:</b>	<a href="#">Analog Devices, Inc</a>
<b>Package/Case:</b>	DIP
<b>Product Type:</b>	Amplifier ICs
<b>Lifecycle:</b>	Obsolete



Images are for reference only

[Inquiry](#)

## General Description

Its differential multiplication inputs (X, Y) and its summing input (Z) are at high impedance. The low impedance output voltage (W) can provide up to  $\pm 2.5$  V and drive loads as low as  $25 \Omega$ . Normal operation is from  $\pm 5$  V supplies.

Though providing state-of-the-art speed, the AD835 is simple to use and versatile. For example, as well as permitting the addition of a signal at the output, the Z input provides the means to operate the AD835 with voltage gains up to about  $\times 10$ . In this capacity, the very low product noise of this multiplier ( $50 \text{ nV}/\sqrt{\text{Hz}}$ ) makes it much more useful than earlier products.

The AD835 is available in an 8-lead PDIP package (N) and an 8-lead SOIC package (R) and is specified to operate over the  $-40^\circ\text{C}$  to  $+85^\circ\text{C}$  industrial temperature range.

### Product Highlights

The AD835 is the first monolithic 250 MHz, four-quadrant voltage output multiplier.

Minimal external components are required to apply the AD835 to a variety of signal processing applications.

High input impedances ( $100 \text{ k}\Omega/2 \text{ pF}$ ) make signal source loading negligible.

High output current capability allows low impedance loads to be driven.

State-of-the-art noise levels achieved through careful device optimization and the use of a special low noise, band gap voltage reference.

Designed to be easy to use and cost effective in applications that require the use of hybrid or board-level solutions.

### Applications

Very fast multiplication, division, squaring

Wideband modulation and demodulation

Phase detection and measurement

Sinusoidal frequency doubling

Video gain control and keying

Voltage-controlled amplifiers and filters

## Key Features

Simple: Basic Function is  $W = XY + Z$

Complete: Minimal External Components Required

DC-Coupled Voltage Output Simplifies Use

Very Fast: Settles to 0.1% of FS in 20 ns

High Differential Input Impedance X, Y, and Z Inputs

Low Multiplier Noise:  $50 \text{ nV}/\sqrt{\text{Hz}}$

## Application

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## Recommended For You

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### **AD632SH**

Analog Devices, Inc  
CAN10

### **AD834AQ**

Analog Devices, Inc  
CDIP8

### **AD632TH**

Analog Devices, Inc  
CAN

### **AD734AN**

Analog Devices, Inc  
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### **AD734BN**

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### **AD734BNZ**

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### **AD734ANZ**

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### **AD835AR**

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### **AD734AQ**

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### **AD632ADZ**

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### **ADG3308BCPZ-REEL7**

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