

Analog Multiplier 4Bit 8-Pin PDIP N

Manufacturer:	Analog Devices, Inc
Package/Case:	DIP8
Product Type:	Amplifier ICs
Lifecycle:	Obsolete



Images are for reference only

[Inquiry](#)

General Description

The AD633 is laser calibrated to a guaranteed total accuracy of 2% of full scale. Nonlinearity for the Y input is typically less than 0.1% and noise referred to the output is typically less than 100 μ V rms in a 10 Hz to 10 kHz bandwidth. A 1 MHz bandwidth, 20 V/ μ s slew rate, and the ability to drive capacitive loads make the AD633 useful in a wide variety of applications where simplicity and cost are key concerns.

The versatility of the AD633 is not compromised by its simplicity. The Z input provides access to the output buffer amplifier, enabling the user to sum the outputs of two or more multipliers, increase the multiplier gain, convert the output voltage to a current, and configure a variety of applications.

The AD633 is available in 8-lead PDIP and SOIC packages. It is specified to operate over the 0°C to 70°C commercial temperature range (J Grade) or the -40°C to +85°C industrial temperature range (A Grade).

Product Highlights

The AD633 is a complete four-quadrant multiplier offered in low cost 8-lead SOIC and PDIP packages. The result is a product that is cost effective and easy to apply.

No external components or expensive user calibration are required to apply the AD633.

Monolithic construction and laser calibration make the device stable and reliable.

High (10 M Ω) input resistances make signal source loading negligible.

Power supply voltages can range from \pm 8 V to \pm 18 V. The internal scaling voltage is generated by a stable Zener diode; multiplier accuracy is essentially supply insensitive.

Applications

Multiplication, division, squaring

Modulation/demodulation, phase detection

Voltage-controlled amplifiers/attenuators/filters

Key Features

4-quadrant multiplication

Low cost, 8-lead SOIC and PDIP packages

Complete—no external components required

Laser-trimmed accuracy and stability

Total error within 2% of full scale

Differential high impedance X and Y inputs

High impedance unity-gain summing input

Laser-trimmed 10 V scaling reference

Supports defense and aerospace applications (AQEC standard)

[Download\(pdf\)](#)

Military temperature range (-55°C to $+125^{\circ}\text{C}$)

Controlled manufacturing baseline

One assembly/test site

One fabrication site

Enhanced product change notification

Qualification data available on request

V62/18603 DSCC Drawing Number

Application

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Recommended For You

AD8309ARUZ

Analog Devices, Inc

TSSOP16

AD524BDZ

Analog Devices, Inc

CDIP-16

AD8221BR

Analog Devices, Inc

SOP-8

AD8221ARZ

Analog Devices, Inc
SOP8

AD627BRZ

Analog Devices, Inc
SOP8

AD622ANZ

Analog Devices, Inc
DIP8

ADA4930-2YCPZ-R7

Analog Devices, Inc
LFCSP24

AD8034ARZ

Analog Devices, Inc
SOP8

AD8561ARZ

Analog Devices, Inc
SOP8

AD633JRZ

Analog Devices, Inc
SOP8

AD632AH

Analog Devices, Inc
CAN10

AD8422BRZ

Analog Devices, Inc
SOP8

ADCMP600BKSZ-R2

Analog Devices, Inc
SC70-5

AD620BN

Analog Devices, Inc
DIP8

AD620BR

Analog Devices, Inc
SOP