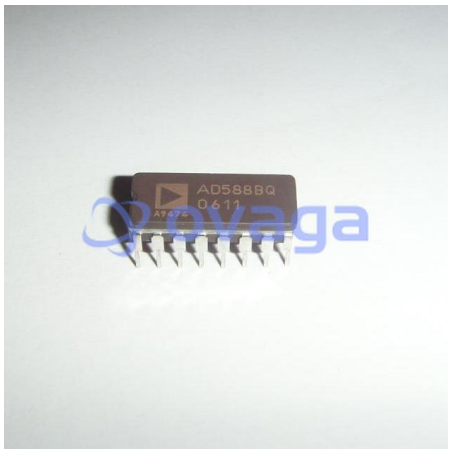
AD588BQ

Data Sheet

Voltage Reference Series - Programmable, ±5V, ±10V reference, 1.5ppm/°C, DIP-16

Manufacturers	Analog Devices, Inc
Package/Case	CDIP-16
Product Type	Power Management ICs
RoHS	
Lifecycle	



Images are for reference only

Please submit RFQ for AD588BQ or Email to us: sales@ovaga.com We will contact you in 12 hours. RFQ

General Description

The AD588 includes the basic reference cell and three additional amplifiers that provide pin programmable output ranges. The amplifiers are laser trimmed for low offset and low drift to maintain the accuracy of the reference. The amplifiers are configured to allow Kelvin connections to the load and/or boosters for driving long lines or high current loads, delivering the full accuracy of the AD588 where it is required in the application circuit.

The low initial error allows the AD588 to be used as a system reference in precision measurement applications requiring 12-bit absolute accuracy. In such systems, the AD588 can provide a known voltage for system calibration in software. The low drift also allows compensation for the drift of other components in a system. Manual system calibration and the cost of periodic recalibration can, therefore, be eliminated. Furthermore, the mechanical instability of a trimming potentiometer and the potential for improper calibration can be eliminated by using the AD588 in conjunction with auto calibration software.

The AD588 is available in seven versions. The AD588JQ and AD588KQ are packaged in a 16-lead CERDIP and are specified for 0°C to +70°C operation. The AD588AQ and AD588BQ are packaged in a 16-lead CERDIP, and the AD588ARWZ is packaged in a 16-lead SOIC, and they are specified for the −25°C to +85°C industrial temperature range. The ceramic AD588TE and AD588TQ grades are specified for the full military/aerospace temperature range.

Product Highlights

The AD588 offers 12-bit absolute accuracy without any user adjustments. Optional fine-trim connections are provided for applications requiring higher precision. The fine trimming does not alter the operating conditions of the Zener or the buffer amplifiers, and so does not increase the temperature drift.

Output noise of the AD588 is very low, typically 6 µV p-p. A pin is provided for additional noise filtering using an external capacitor.

A precision ±5 V tracking mode with Kelvin output connections is available with no external components. Tracking error is less than 1 mV, and a fine trim is available for applications requiring exact symmetry between the +5 V and −5 V outputs.

Pin strapping capability allows configuration of a wide variety of outputs: ±5 V, +5 V, +10 V, −5 V, and −10 V dual outputs or +5 V, −5 V, +10 V, and −10 V single outputs.

Features

Low drift: 1.5 ppm/°C

Low initial error: 1 mV

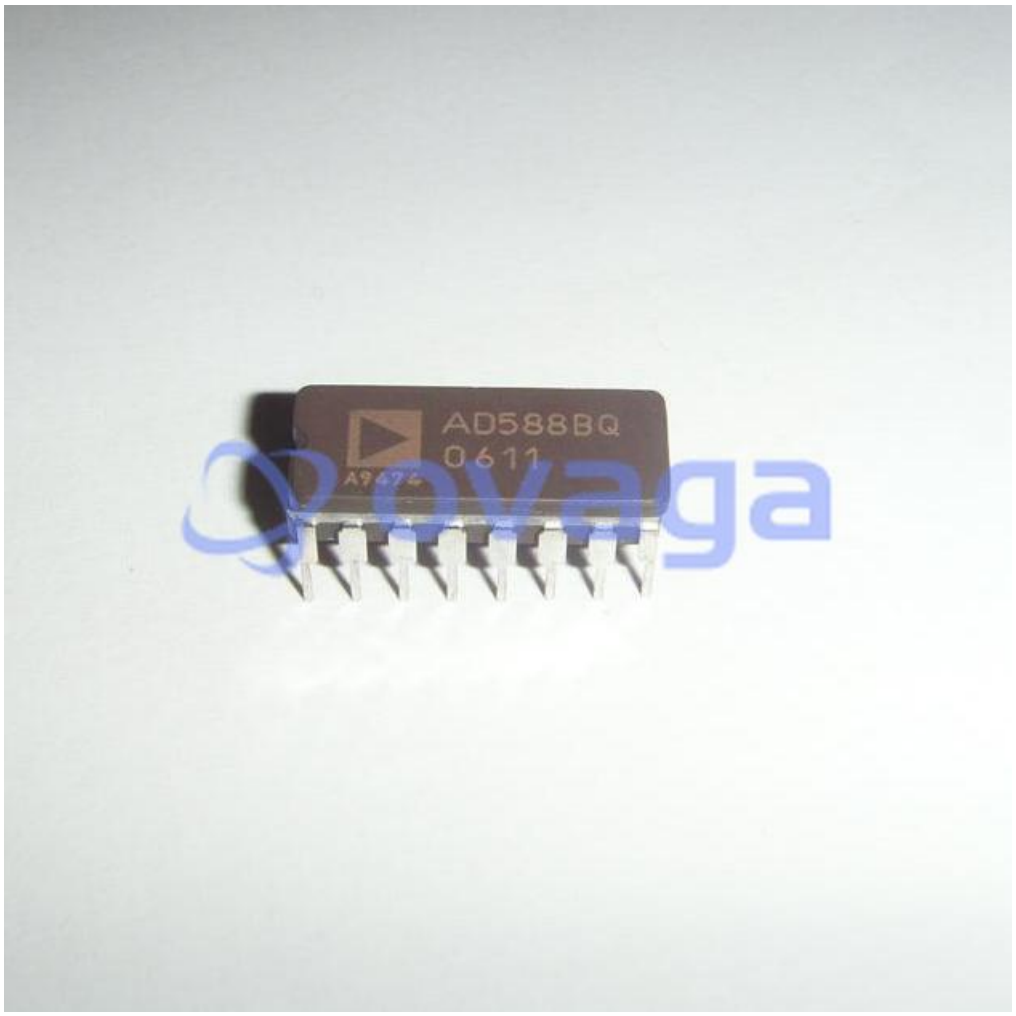
Pin programmable output

Flexible output force and sense terminals

High impedance ground sense

SOIC_W-16 and CERDIP-16 packages

MIL-STD-883-compliant versions available



Related Products

ADP3336ARMZ-REEL7

Analog Devices, Inc

MSOP-8

AD737JRZ

Analog Devices, Inc

SOP-8

ADP3367ARZ

Analog Devices, Inc

SOIC-8

AD636JH

Analog Devices, Inc

TO-100-10

ADP3330ARTZ3.3-RL7

Analog Devices, Inc

SOT-23-6

ADR434BRZ

Analog Devices, Inc

SOIC-8

ADR421ARZ

Analog Devices, Inc

SOP-8

ADR3412ARJZ-R7

Analog Devices, Inc

SOT-23-6