

FEATURES

DAC1138

18-Bit Resolution and Accuracy ($38\mu\text{V}$, 1 Part in 262,144)

Nonlinearity 1/2LSB max (DAC1138K)

Excellent Stability

Settling to 1/2LSB (0.0002%) in $10\mu\text{s}$

Hermetically-Sealed Semiconductors

DAC1136

16-Bit Resolution and Accuracy ($152\mu\text{V}$, 1 Part in 65,536)

Low Cost

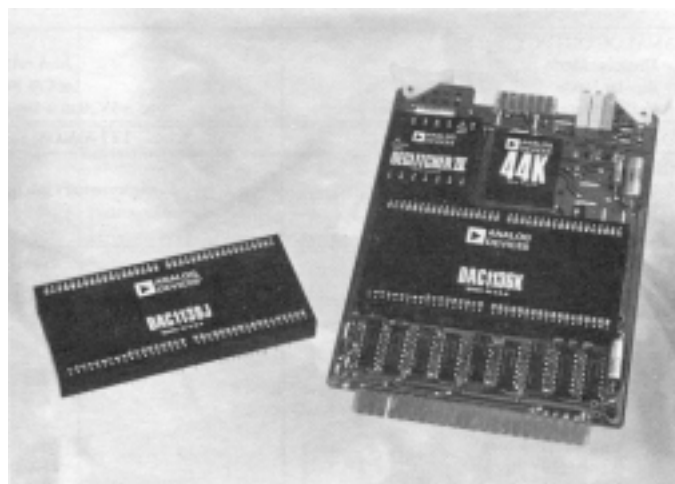
Nonlinearity 1/2LSB max (DAC1136K, L)

Settling to 1/2LSB max (0.0008%) in $6\mu\text{s}$

DEGLITCHER IV

Eliminates DAC Glitches

Available on DAC1136/1138 Card-Mounted Assembly



GENERAL DESCRIPTION

The DAC1136/DAC1138 are complete self-contained current or voltage output modular digital-to-analog converters with resolutions and accuracies of 16 and 18 bits.

The DAC1136/1138 combine precision current sources with state-of-the-art steering switches to produce a very linear output. Inputs to these converters are compatible with TTL levels. The converters have a current output of -2mA full scale. A voltage output can be obtained by connecting the internal amplifier to the current output by means of jumpers. By using additional jumpers, the user can select any one of the following output ranges: 0V to $+5\text{V}$, 0V to $+10\text{V}$, $\pm 5\text{V}$, or $\pm 10\text{V}$.

The DAC1136/1138 are available on Card-Mounted Assemblies. In this configuration, selectable options include: input codes, output amplifiers, and a high speed transient-suppressing Deglitcher Module, Deglitcher IV.

WHERE TO USE HIGH RESOLUTION DACS

The DAC1136/1138 deliver exceptional accuracy for a broad range of display, test and instrumentation applications. The DAC1136, with a resolution of 16 bits or 1 part in 65,536, and the DAC1138 with a resolution of 18 bits or 1 part in 262,144 are ideally suited for applications requiring wide dynamic range measurement and control. Applications include data acquisition systems, high resolution CRT displays, automatic semiconductor testing, photo-typesetting, frequency synthesis and nuclear reactor control.

CERTIFICATE OF CALIBRATION

Each DAC1138 has been calibrated with equipment and methods that are traceable to the National Bureau of Standards (NBS). A Certificate of Performance is sent with each unit, which includes linearity test data.

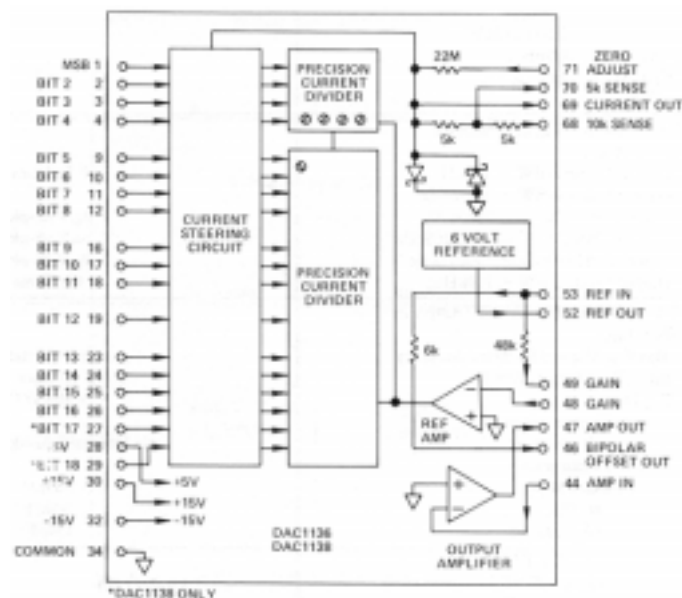


Figure 1. Block Diagram and Pin Designations