



# Microprocessor Compatible 14-Bit DACs

MX7534/MX7535

## General Description

The MX7534 and MX7535 are high-performance, CMOS, monolithic, 14-bit digital-to-analog converters (DACs).

Wafer-level, laser-trimmed, thin-film resistors and temperature compensated NMOS switches assure operation over the full operating temperature range with exceptional linear and gain stability.

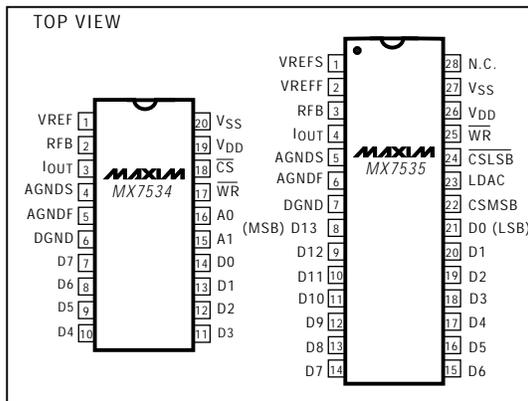
The MX7534 accepts right-justified data in 2 bytes from an 8-bit bus, whereas the MX7535 operates with a 14-bit data bus with separate MS- and LS-byte select controls. In addition, all digital inputs are compatible with both TTL and 5V CMOS logic levels. The MX7534/MX7535 are intended for unipolar operation, but may be operated as bipolar DACs with additional external components. All devices are protected against CMOS "latchup" and do not require the use of external Schottky protection diodes.

The MX7534 is available in 20-pin narrow (0.3") DIP, wide SO, or PLCC packages. The MX7535 is available in 28-pin, 600 mil wide DIP, wide SO or PLCC packages.

## Applications

- Machine and Motor Control Systems
- Automatic Test Equipment
- Digital Audio
- µP-Controlled Calibration Circuitry
- Programmable Gain Amplifiers
- Digitally Controlled Filters
- Programmable Power Supplies

## Pin Configurations



## Features

- ♦ 14-Bit Monotonic Over Full Temperature Range
- ♦ Full 4-Quadrant Multiplication
- ♦ µP-Compatible Double Buffered Inputs
- ♦ Exceptionally Low Gain Tempco (2.5ppm/°C)
- ♦ Low Output Leakage (<20nA) Over Temp. Range
- ♦ Low Power Consumption
- ♦ TTL and CMOS Compatible

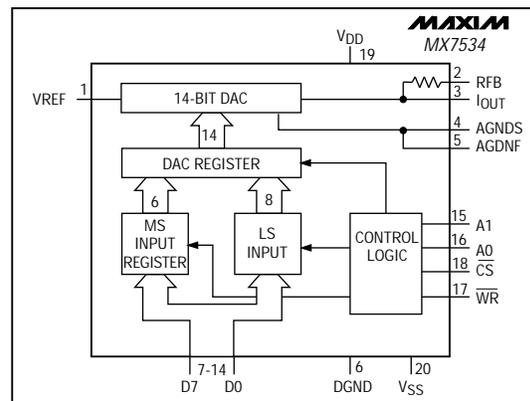
## Ordering Information

PART	TEMP. RANGE	PIN-PACKAGE	ERROR
MX7534JN	0°C to +70°C	20 Plastic DIP	±2 LSB
MX7534KN	0°C to +70°C	20 Plastic DIP	±1 LSB
MX7534JCWP	0°C to +70°C	20 Wide SO	±2 LSB
MX7534KCWP	0°C to +70°C	20 Wide SO	±1 LSB
MX7534JP	0°C to +70°C	20 PLCC	±2 LSB
MX7534KP	0°C to +70°C	20 PLCC	±1 LSB
MX7534J/D	0°C to +70°C	Dice*	±2 LSB
MX7534AQ	-25°C to +85°C	20 CERDIP	±2 LSB
MX7534BQ	-25°C to +85°C	20 CERDIP	±1 LSB
MX7534AD	-25°C to +85°C	20 Ceramic SB	±2 LSB
MX7534BD	-25°C to +85°C	20 Ceramic SB	±1 LSB
MX7534JEW	-40°C to +85°C	20 Wide SO	±2 LSB
MX7534KEW	-40°C to +85°C	20 Wide SO	±1 LSB
MX7534SQ	-55°C to +125°C	20 CERDIP	±2 LSB
MX7534TQ	-55°C to +125°C	20 CERDIP	±1 LSB
MX7534SD	-55°C to +125°C	20 Ceramic SB	±2 LSB
MX7534TD	-55°C to +125°C	20 Ceramic SB	±1 LSB

Ordering Information continued on last page.

\* Contact factory for dice specifications.

## Functional Diagrams



# Microprocessor Compatible 14-Bit DACs

MX7534/MX7535

## Ordering Information

PART	TEMP. RANGE	PACKAGE	ERROR
MX7535JN	0°C to +70°C	28 Plastic DIP	±2 LSB
MX7535KN	0°C to +70°C	28 Plastic DIP	±1 LSB
MX7535JCWI	0°C to +70°C	28 Wide SO	±2 LSB
MX7535KCWI	0°C to +70°C	28 Wide SO	±1 LSB
MX7535JP	0°C to +70°C	28 PLCC	±2 LSB
MX7535KP	0°C to +70°C	28 PLCC	±1 LSB
MX7535J/D	0°C to +70°C	Dice	±2 LSB
MX7535AQ	-25°C to +85°C	28 CERDIP	±2 LSB
MX7535BQ	-25°C to +85°C	28 CERDIP	±1 LSB
MX7535AD	-25°C to +85°C	28 Ceramic SB	±2 LSB
MX7535BD	-25°C to +85°C	28 Ceramic SB	±1 LSB
MX7535JEWI	-40°C to +85°C	28 Wide SO	±2 LSB
MX7535KEWI	-40°C to +85°C	28 Wide SO	±1 LSB
MX7535SQ	-55°C to +125°C	28 CERDIP	±2 LSB
MX7535TQ	-55°C to +125°C	28 CERDIP	±1 LSB
MX7535SD	-55°C to +125°C	28 Ceramic SB	±2 LSB
MX7535TD	-55°C to +125°C	28 Ceramic SB	±1 LSB

\* Contact factory for dice specifications.

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