

Complete Data Sheet available via web, Harris' home page: <http://www.semi.harris.com> or via Harris AnswerFAX, see Section 17

August 1997

## 8-Bit, Multiplying D/A Converters

### Features

- 8-Bit, 9-Bit and 10-Bit Linearity
- Low Gain and Linearity Temperature Coefficients
- Full Temperature Range Operation
- Static Discharge Input Protection
- TTL/CMOS Compatible
- Supply Range .....+5V to +15V
- Fast Settling Time at 25°C ..... 150ns (Max)
- Four Quadrant Multiplication
- AD7533 Direct AD7520 Equivalent

### Description

The AD7523 and AD7533 are monolithic, low cost, high performance, 8-bit and 10-bit accurate, multiplying digital-to-analog converter (DAC), in a 16 pin DIP.

Harris' thin film resistors on CMOS circuitry provide 10-bit resolution (8-bit, 9-bit and 10-bit accuracy), with TTL/CMOS compatible operation.

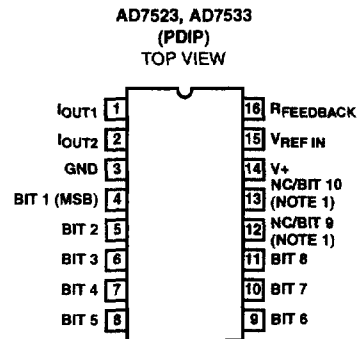
The AD7523 and AD7533s accurate four quadrant multiplication, full military temperature range operation, full input protection from damage due to static discharge by clamps to V+ and GND, and very low power dissipation make it a very versatile converter.

Low noise audio gain controls, motor speed controls, digitally controlled gain and digital attenuators are a few of the wide range of applications of the AD7523 and AD7533.

### Ordering Information

PART NUMBER	LINEARITY (INL, DNL)	TEMP. RANGE (°C)	PACKAGE	PKG. NO.
AD7523JN, AD7533JN	0.2% (8-Bit)	0 to 70	16 Ld PDIP	E16.3
AD7523KN, AD7533KN	0.1% (9-Bit)	0 to 70	16 Ld PDIP	E16.3
AD7523LN, AD7533LN	0.05% (10-Bit)	0 to 70	16 Ld PDIP	E16.3

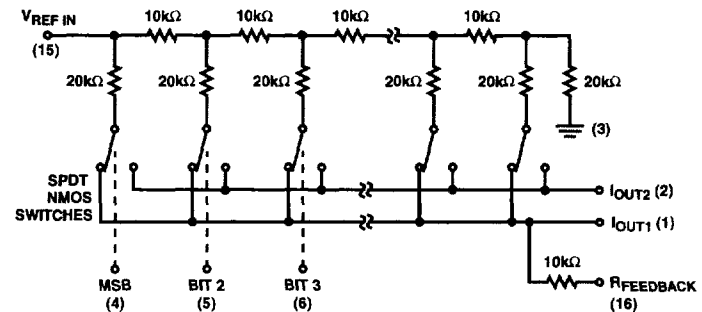
### Pinout



NOTE:

1. NC for AD7523 only.

### Functional Block Diagram



NOTE: Switches shown for digital inputs "High"