

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

August 1997

## 10-Bit, 12-Bit, Multiplying D/A Converters

### Features

- AD7520/AD7530, 10-Bit Resolution; 8-Bit, 9-Bit and 10-Bit Linearity
- AD7521/AD7531, 12-Bit Resolution; 8-Bit, 9-Bit and 10-Bit Linearity
- Low Power Dissipation (Max) . . . . . 20mW
- Low Nonlinearity Tempco at 2ppm of FSR/°C
- Current Settling Time to 0.05% of FSR . . . . . 1.0μs
- Supply Voltage Range . . . . . ±5V to +15V
- TTL/CMOS Compatible
- Full Input Static Protection
- /883B Processed Versions Available

### Description

The AD7520/AD7530 and AD7521/AD7531 are monolithic, high accuracy, low cost 10-bit and 12-bit resolution, multiplying digital-to-analog converters (DAC). Harris' thin-film on CMOS processing gives up to 10-bit accuracy with TTL/CMOS compatible operation. Digital inputs are fully protected against static discharge by diodes to ground and positive supply.

Typical applications include digital/analog interfacing, multiplication and division, programmable power supplies, CRT character generation, digitally controlled gain circuits, integrators and attenuators, etc.

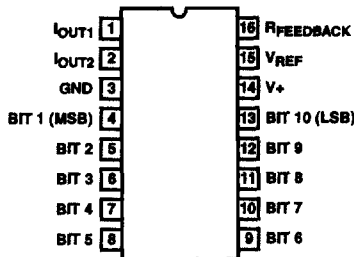
The AD7530 and AD7531 are identical to the AD7520 and AD7521, respectively, with the exception of output leakage current and feedthrough specifications.

### Ordering Information

PART NUMBER	LINEARITY (INL, DNL)	TEMP. RANGE (°C)	PACKAGE	PKG. NO.
AD7520JN, AD7530JN	0.2% (8-Bit)	0 to 70	16 Ld PDIP	E16.3
AD7520KN, AD7530KN	0.1% (9-Bit)	0 to 70	16 Ld PDIP	E16.3
AD7521JN, AD7531JN	0.2% (8-Bit)	0 to 70	18 Ld PDIP	E18.3
AD7521KN, AD7531KN	0.1% (9-Bit)	0 to 70	18 Ld PDIP	E18.3
AD7520LN, AD7530LN	0.05% (10-Bit)	-40 to 85	16 Ld PDIP	E16.3
AD7521LN, AD7531LN	0.05% (10-Bit)	-40 to 85	18 Ld PDIP	E18.3
AD7520JD	0.2% (8-Bit)	-25 to 85	16 Ld CERDIP	F16.3
AD7520KD	0.1% (9-Bit)	-25 to 85	16 Ld CERDIP	F16.3
AD7520LD	0.05% (10-Bit)	-25 to 85	16 Ld CERDIP	F16.3
AD7520SD, AD7520SD/883B	0.2% (8-Bit)	-55 to 125	16 Ld CERDIP	F16.3
AD7520UD, AD7520UD/883B	0.05% (10-Bit)	-55 to 125	16 Ld CERDIP	F16.3

### Pinouts

AD7520, AD7530  
(CERDIP, PDIP)  
TOP VIEW



AD7521, AD7531  
(PDIP)  
TOP VIEW

