

Precision DACs

Part Number	Bits	Outputs	Interface	Package	Price @ 1k (U.S.)	Description
<i>Low Voltage, Single Supply (Unipolar Voltage Output with Operation at 5 V and Below)</i>						
AD5300	8	1	SPI	6-lead SOT-23	1.12	140 μ A
AD5601	8	1	SPI	6-lead SC70	0.95	Small SC70 package (6 leads); 100 μ A max
AD5602	8	1	I ² C [®]	6-lead SC70	0.93	Small SC70 package (6 leads); 100 μ A max
AD5330	8	1	Parallel	20-lead TSSOP	1.95	140 μ A, CLR, LDAC, and PD pins
AD557	8	1	Parallel	20-lead PLCC	4.38	On-chip reference; see AD558 for 5 V to 15 V operation
AD7801	8	1	Parallel	20-lead TSSOP	1.80	Fast settling (2 μ s)
AD5301	8	1	I ² C	6-lead SOT-23	1.40	150 μ A
AD5302	8	2	SPI	10-lead MSOP	1.07	230 μ A, LDAC pin; improved linearity B grade
AD7303	8	2	SPI	8-lead MSOP	2.35	Fast settling (2 μ s)
AD5332	8	2	Parallel	20-lead TSSOP	2.95	300 μ A, CLR, LDAC, and PD pins
AD7302	8	2	Parallel	20-lead TSSOP	2.00	Fast settling (2 μ s)
AD5337	8	2	I ² C	8-lead MSOP	1.11	I ² C interface; improved linearity B grade
AD5304	8	4	SPI	10-lead MSOP	1.85	Improved linearity B grade
AD5307	8	4	SPI	16-lead TSSOP	2.25	LDAC, CLR, SDO, DCEN, and PD pins; improved linearity B grade
AD7339	8	4	Serial, parallel	52-lead QFP	7.85	Includes 8-bit ADC; serial and parallel interfaces
AD5334	8	4	Parallel	20-lead TSSOP	3.35	LDAC, CLR, PD, and GAIN pins
AD5305	8	4	I ² C	10-lead MSOP	1.90	Improved linearity B grade
AD5306	8	4	I ² C	16-lead TSSOP	2.15	LDAC and PD pins; improved linearity B grade
AD5308	8	8	SPI	16-lead TSSOP	2.48	LDAC pin; improved linearity B grade
DAC8841	8	8	SPI	24-lead SOIC	10.89	See AD8840 for ± 5 V operation
AD5346	8	8	Parallel	40-lead LFCSP	2.42	PD, LDAC, CLR, and GAIN pins
AD8801	8	8	SPI	16-lead SOIC	3.46	Preset to midscale
AD8803	8	8	SPI	16-lead SOIC	3.46	V _{REF} high and low pins, reset to V _{REF} low
AD8842	8	8	SPI	24-lead SOIC	7.88	4-quadrant multiplying trim DAC, ± 3 V output swing
AD8802	8	12	SPI	20-lead TSSOP	3.97	Preset to midscale
AD8804	8	12	SPI	20-lead TSSOP	3.97	Preset to zero scale
AD5310	10	1	SPI	6-lead SOT-23	1.70	140 μ A
AD5611	10	1	SPI	6-lead SC70	1.18	Small SC70 package (6 leads); 100 μ A max
AD5612	10	1	I ² C	6-lead SC70	1.15	Small SC70 package (6 leads); 100 μ A max
AD7391	10	1	SPI	8-lead TSSOP	3.27	Low power (55 μ A)
AD5331	10	1	Parallel	20-lead TSSOP	2.10	140 μ A, CLR, LDAC, and PD pins
AD5311	10	1	I ² C	6-lead SOT-23	1.95	150 μ A
AD5312	10	2	SPI	10-lead MSOP	1.80	230 μ A, LDAC pin; improved linearity B grade
AD5313	10	2	SPI	16-lead TSSOP	1.95	230 μ A, LDAC, CLR, SDO, PD, and DCEN pins; improved linearity B grade
AD7395	10	2	SPI	14-lead TSSOP	3.38	Low power (125 μ A)
AD5333	10	2	Parallel	20-lead TSSOP	3.00	300 μ A, CLR, LDAC, and PD pins
AD7397	10	2	Parallel	24-lead TSSOP	3.50	Low power (125 μ A)
AD5338	10	2	I ² C	8-lead MSOP	1.90	I ² C interface; improved linearity B grade
AD5314	10	4	SPI	10-lead MSOP	2.60	LDAC, CLR, SDO, DCEN, and PD pins; improved linearity B grade
AD5317	10	4	SPI	16-lead TSSOP	2.72	LDAC, CLR, SDO, DCEN, and PD pins; improved linearity B grade
AD5336	10	4	Parallel	20-lead TSSOP	4.00	LDAC, CLR, GAIN, and PD pins
AD5335	10	4	Parallel, byte	20-lead TSSOP	3.85	LDAC, CLR, and PD pins
AD5315	10	4	I ² C	10-lead MSOP	2.65	Improved linearity B grade
AD5316	10	4	I ² C	16-lead TSSOP	2.75	LDAC and PD pins; improved linearity B grade
AD5318	10	8	SPI	16-lead TSSOP	3.90	LDAC pin; improved linearity B grade
AD5347	10	8	Parallel	40-lead LFCSP	2.92	PD, LDAC, CLR, and GAIN pins
AD5320	12	1	SPI	6-lead SOT-23	2.50	140 μ A
AD5621	12	1	SPI	6-lead SC70	1.29	1 LSB INL, small SC70 package (6 leads); 100 μ A max

Part Number	Bits	Outputs	Interface	Package	Price @ 1k (U.S.)	Description
AD5622	12	1	I ² C	6-lead SC70	1.32	Small SC70 package (6 leads); 100 μ A max
AD5620	12	1	SPI	8-lead SOT-23	1.80	Internal 5 ppm reference, VFB pin
AD7390	12	1	SPI	8-lead SOIC	4.76	Low power (55 μ A)
AD8300	12	1	SPI	8-lead SOIC	5.22	LDAC and CLR pins
DAC8512	12	1	SPI	8-lead SOIC	4.67	LDAC and CLR pins
AD5626 New	12	1	SPI	8-lead LFCSP, 8-lead MSOP	1.40	1 LSB INL, LDAC and CLR pins (upgrade to DAC8512)
AD5340	12	1	Parallel	20-lead TSSOP	3.25	140 μ A, CLR, LDAC, and PD pins
AD7392	12	1	Parallel	20-lead SOIC	5.06	Low power (55 μ A)
DAC8562	12	1	Parallel	20-lead SOIC	8.90	On-chip reference, REFOUT and CLR pins
AD5341	12	1	Parallel, byte	20-lead TSSOP	3.00	140 μ A, CLR, LDAC, and PD pins
AD5321	12	1	I ² C	6-lead SOT-23	2.95	150 μ A
AD5025 New	12	2	SPI	14-lead TSSOP	2.40	1 LSB INL, LDAC, CLR, SDO, reset select, 4 reference inputs
AD5322	12	2	SPI	10-lead MSOP	3.10	230 μ A, LDAC pin; improved linearity B grade
AD5323	12	2	SPI	16-lead TSSOP	3.15	230 μ A, extended pin control; improved linearity B grade
AD5623R New	12	2	SPI	10-lead MSOP, 10-lead LFCSP	2.49	Dual, 12-bit DAC, LDAC, CLR, 5 ppm reference, 3 mm \times 3 mm LFCSP package
AD7394	12	2	SPI	14-lead SOIC	5.74	Low power (125 μ A)
AD8303	12	2	SPI	14-lead TSSOP	8.86	3 V, internal reference, selectable reset, individual LDAC pins
AD8522	12	2	SPI	14-lead TSSOP	7.52	Dual, 12-bit DAC, on-chip reference, \pm 1.5 LSB INL
AD5342	12	2	Parallel	20-lead TSSOP	5.00	300 μ A, CLR, LDAC, GAIN, and PD pins
AD7396	12	2	Parallel	24-lead SOIC	5.95	Low power (125 μ A)
AD8582	12	2	Parallel	24-lead SOIC	9.52	5 V, internal reference, selectable reset, individual LDAC pins
AD5343	12	2	Parallel, byte	20-lead TSSOP	4.70	300 μ A, CLR, LDAC, and PD pins
AD5399	12	2	SPI	10-lead MSOP	4.50	Fast settling time (0.8 μ s typ), 4 V p-p output with 2 V dc offset
AD5339	12	2	I ² C	8-lead MSOP	3.20	I ² C interface; improved linearity B grade
AD5627R New	12	2	I ² C	10-lead MSOP, 10-lead LFCSP	2.65	5 ppm reference, LDAC, CLR pins, 100 kHz/400 kHz and 3.4 MHz interface
AD5627 New	12	2	I ² C	10-lead MSOP, 10-lead LFCSP	2.35	LDAC, CLR pins, 100 kHz/400 kHz and 3.4 MHz interface
AD5024 New	12	4	SPI	16-lead TSSOP	5.10	1 LSB INL, LDAC, CLR, reset select pins, 4 reference inputs
AD5324	12	4	SPI	10-lead MSOP	5.04	LDAC, CLR, SDO, DCEN, and PD pins; improved linearity B grade
AD5327	12	4	SPI	16-lead TSSOP	5.20	LDAC, CLR, SDO, DCEN, and PD pins; improved linearity B grade
AD5624 New	12	4	SPI	10-lead MSOP, 10-lead LFCSP	5.49	Quad, 12-bit DAC, tiny 3 mm \times 3 mm LFCSP package
AD5624R New	12	4	SPI	10-lead MSOP, 10-lead LFCSP	5.99	Quad, 12-bit DAC, 5 ppm reference, tiny 3 mm \times 3 mm LFCSP package
AD5344	12	4	Parallel	20-lead TSSOP	7.95	LDAC, CLR, and PD pins
AD5325	12	4	I ² C	10-lead MSOP	5.20	Improved linearity B grade
AD5326	12	4	I ² C	16-lead TSSOP	5.30	LDAC and PD pins; improved linearity B grade
AD5625R New	12	4	I ² C	10-lead LFCSP, 14-lead TSSOP	5.99	5 ppm reference, LDAC, CLR pins, reset to zero/midscale 100 kHz/400 kHz and 3.4 MHz interface
AD5625 New	12	4	I ² C	10-lead LFCSP, 14-lead TSSOP	5.49	LDAC, CLR pins, reset to zero/midscale 100 kHz/400 kHz and 3.4 MHz interface
AD5328	12	8	SPI	16-lead TSSOP	6.95	LDAC pin; improved linearity B grade
AD5628	12	8	SPI	14-lead TSSOP	8.80	Octal, 12-bit DAC with on-chip 5 ppm reference, LDAC, CLR
AD5348	12	8	Parallel	40-lead LFCSP	8.41	PD, LDAC, CLR, and GAIN pins
AD5391	12	16	SPI, I ² C	64-lead LFCSP, 52-lead LQFP	19.90	<i>denseDAC</i> [®] ; 3 V/5 V, on-chip reference, programmable offset and gain
AD5383	12	32	Parallel, SPI, I ² C	100-lead LQFP	34.50	<i>denseDAC</i> ; 3 V/5 V, on-chip reference, programmable offset and gain
AD5381	12	40	Parallel, SPI, I ² C	100-lead LQFP	39.50	<i>denseDAC</i> ; 3 V/5 V, on-chip reference, programmable offset and gain
AD5551	14	1	SPI	8-lead SOIC	6.95	Fast settling (1 μ s)
AD5552	14	1	SPI	14-lead SOIC	6.95	Fast settling (1 μ s), bipolar mode
AD5641	14	1	SPI	6-lead SC70	2.10	4 LSB INL, small SC70 package (6 leads); 100 μ A max
AD5640	14	1	SPI	8-lead SOT-23	2.60	Internal 5 ppm reference, VFB pin
AD5040	14	1	SPI	8-lead SOT-23	5.95	Precision-buffered, 14-bit DAC in SOT-23, max 1 LSB INL
AD5045 New	14	2	SPI	14-lead TSSOP	7.05	1 LSB INL, LDAC, CLR, SDO, reset select, 4 reference inputs
AD5643R New	14	2	SPI	10-lead MSOP, 10-lead LFCSP	4.75	Dual, 14-bit DAC, LDAC, CLR, 5 ppm reference, 3 mm \times 3 mm LFCSP package
AD5647R New	14	2	I ² C	10-lead MSOP, 10-lead LFCSP	4.65	5 ppm reference, LDAC, CLR pins, 100 kHz/400 kHz and 3.4 MHz interface
AD5044 New	14	4	SPI	16-lead TSSOP	10.95	1 LSB INL, LDAC, CLR, reset select pins, 4 reference inputs
AD5644R New	14	4	SPI	10-lead MSOP, 10-lead LFCSP	7.95	Quad, 14-bit DAC, 5 ppm reference, tiny 3 mm \times 3 mm LFCSP package

Part Number	Bits	Outputs	Interface	Package	Price @ 1k (U.S.)	Description
AD5645R New	14	4	I ² C	10-lead LFCSP, 14-lead TSSOP	7.50	5 ppm reference, LDAC, CLR pins, reset to zero/midscale 100 kHz/400 kHz and 3.4 MHz interface
AD5648	14	8	SPI	14-lead TSSOP	10.75	Octal, 14-bit DAC with on-chip 5 ppm reference, LDAC, CLR
AD5392	14	8	SPI, I ² C	64-lead LFCSP, 52-lead LQFP	14.90	denseDAC; 3 V/5 V, on-chip reference, programmable offset and gain
AD5390	14	16	SPI, I ² C	64-lead LFCSP, 52-lead LQFP	23.90	denseDAC; 3 V/5 V, on-chip reference, programmable offset and gain
AD5382	14	32	Parallel, SPI, I ² C	100-lead LQFP	42.50	denseDAC; 3 V/5 V, on-chip reference, programmable offset and gain
AD5380	14	40	Parallel, SPI, I ² C	100-lead LQFP	49.50	denseDAC; 3 V/5 V, on-chip reference, programmable offset and gain
AD5384	14	40	SPI, I ² C	100-ball CSP_BGA	49.50	denseDAC; 3 V/5 V, on-chip reference, programmable offset and gain
AD5541	16	1	SPI	8-lead SOIC	9.04	Fast settling (1 μs)
AD5542	16	1	SPI	14-lead SOIC	9.04	Fast settling (1 μs), bipolar mode
AD5660	16	1	SPI	8-lead SOT-23	3.29	Internal 5 ppm reference, VFB pin
AD5662	16	1	SPI	8-lead SOT-23	2.83	VFB pin
AD5060	16	1	SPI	8-lead SOT-23	5.95	Precision-buffered, 16-bit DAC in SOT-23, max 1 LSB INL
AD5061	16	1	SPI	8-lead SOT-23	3.35	Buffered, 16-bit DAC in SOT-23, max 4 LSB INL
AD5062	16	1	SPI	8-lead SOT-23	5.90	Unbuffered, 16-bit DAC in SOT-23, max 1 LSB INL
AD5063	16	1	SPI	10-lead MSOP	6.50	Unbuffered, 16-bit DAC in SOT-23, max 1 LSB INL, on-chip precision resistors
AD5065 New	16	2	SPI	14-lead TSSOP	7.20	1 LSB INL, LDAC, CLR, SDO, reset select, 4 reference inputs
AD5663 New	16	2	SPI	10-lead MSOP, 10-lead LFCSP	5.05	Dual, 16-bit DAC, LDAC, CLR, 3 mm × 3 mm LFCSP package
AD5663R New	16	2	SPI	10-lead MSOP, 10-lead LFCSP	5.50	Dual, 16-bit DAC, LDAC, CLR, 5 ppm reference, 3 mm × 3 mm LFCSP package
AD5667R New	16	2	I ² C	10-lead MSOP, 10-lead LFCSP	5.60	5 ppm reference, LDAC, CLR pins, 100 kHz/400 kHz and 3.4 MHz interface
AD5667 New	16	2	I ² C	10-lead MSOP, 10-lead LFCSP	5.10	LDAC, CLR pins, 100 kHz/400 kHz and 3.4 MHz interface
AD5064 New	16	4	SPI	14-lead TSSOP, 16-lead TSSOP	11.50	1 LSB INL, LDAC, CLR, SDO pins, 4 reference inputs (on certain models). See also AD5750/AD5751—industrial V/I output driver.
AD5066 New	16	4	SPI	16-lead TSSOP	8.90	Unbuffered, 1 LSB INL, LDAC, CLR, reset select, 4 reference inputs
AD5666	16	4	SPI	14-lead TSSOP	9.30	Quad, 16-bit DAC with on-chip 5 ppm reference, SDO, LDAC, CLR
AD5664 New	16	4	SPI	10-lead MSOP, 10-lead LFCSP	9.95	Quad, 16-bit DAC, tiny 3 mm × 3 mm LFCSP package. See also AD5750/AD5751—industrial V/I output driver.
AD5664R New	16	4	SPI	10-lead MSOP, 10-lead LFCSP	10.45	Quad, 16-bit DAC, 5 ppm reference, tiny 3 mm × 3 mm LFCSP package
AD5665R New	16	4	I ² C	10-lead LFCSP, 14-lead TSSOP	10.45	5 ppm reference, LDAC, CLR pins, reset to zero/midscale 100 kHz/400 kHz and 3.4 MHz interface
AD5665 New	16	4	I ² C	10-lead LFCSP, 14-lead TSSOP	9.95	LDAC, CLR pins, reset to zero/midscale 100 kHz/400 kHz and 3.4 MHz interface
AD5668	16	8	SPI	14-lead TSSOP	13.95	Octal, 16-bit DAC with on-chip 5 ppm reference, LDAC, CLR
AD5678	12, 16	8	SPI	14-lead TSSOP	10.50	4 × 16-bit and 4 × 12-bit DAC with on-chip 5 ppm reference, LDAC, CLR
AD5680	18	1	SPI	8-lead SOT-23	3.39	Buffered, 18-bit DAC in SOT-23, reset to zero/midscale
Bipolar/High Voltage Output (Bipolar Voltage Output, or Operation at Greater Than 5 V)						
AD558	8	1	Parallel	20-lead PLCC	5.53	Fast (3 μs), on-chip reference; see also AD557 for 5 V operation
AD7224	8	1	Parallel	18-lead SOIC	4.14	
DAC8228	8	2	Parallel	20-lead SOIC	4.76	Voltage output version of AD7528/AD7628
DAC8229	8	2	Parallel	20-lead SOIC	4.76	Fast (2 μs); bipolar version of DAC8228
AD7225	8	4	Parallel	24-lead SSOP	4.76	Separate references
AD7226	8	4	Parallel	20-lead SSOP	5.20	Fast (4 μs); like AD7225 except common reference
AD7305	8	4	Parallel	20-lead TSSOP	3.75	Fast (1 μs)
DAC8426	8	4	Parallel	20-lead SOIC	16.34	AD7226 with internal reference
AD7304	8	4	SPI	16-lead TSSOP	3.25	Fast (1 μs)
AD7228	8	8	Parallel	24-lead SOIC	15.24	Fast (5 μs)
DAC8800	8	8	SPI	20-lead SOIC	8.99	Fast (2 μs)
DAC8840	8	8	SPI	24-lead SOIC	10.89	1 MHz multiplying bandwidth; see also AD8841 for 5 V operation
AD8600	8	16	Parallel	44-lead PLCC	35.01	Fast (2 μs)
AD5583	10	4	Parallel	48-lead TSSOP	6.22	10-bit/12-bit, pin-compatible
AD7805	10	4	Parallel	28-lead SSOP	6.25	Fast (4 μs); on-chip reference
AD7399	10	4	SPI	16-lead TSSOP	4.97	High accuracy
AD7804	10	4	SPI	16-lead SOIC	4.89	Fast (4 μs)
AD7809	10	8	Parallel	44-lead QFP	11.85	Fast (4 μs); on-chip reference
AD7808	10	8	SPI	24-lead SOIC	9.31	Fast (4 μs); on-chip reference
AD7248	12	1	Parallel, byte	20-lead SOIC	6.50	On-chip reference
AD667	12	1	Parallel	28-lead PLCC	8.01	Fast (3 μs)

Part Number	Bits	Outputs	Interface	Package	Price @ 1k (U.S.)	Description
AD7245	12	1	Parallel	24-lead SOIC	8.22	On-chip reference
AD767	12	1	Parallel	28-lead PLCC	9.61	Fast (3 μ s)
AD7845	12	1	Parallel	24-lead SOIC	6.30	
AD5530	12	1	SPI	16-lead TSSOP	4.25	± 15 V, 12-bit/14-bit, pin-compatible
AD7243	12	1	SPI	16-lead SOIC	6.96	High accuracy
AD5501 New	12	1	SPI	16-lead TSSOP	4.58	High voltage, 40 V/80 V, reset to zero, LDAC, CLR, alarm, Rfb
AD7237	12	2	Parallel, byte	24-lead SOIC	14.03	Byte wide, on-chip reference
AD7837	12	2	Parallel, byte	28-lead SOIC	14.03	Byte wide
AD7247	12	2	Parallel	24-lead SOIC	14.03	Word wide, on-chip reference
AD7847	12	2	Parallel	24-lead SOIC	14.59	Word wide
AD7249	12	2	SPI	16-lead SOIC	9.20	On-chip reference
AD5722 New	12	2	SPI	24-lead TSSOP	3.50	Software-programmable voltage output 5 V, ± 5 V, 10 V, ± 10 V, single-/dual-supply operation
AD5722R New	12	2	SPI	24-lead TSSOP	5.50	Software-programmable voltage output 5 V, ± 5 V, 10 V, ± 10 V, single-/dual-supply operation, 5 ppm/ $^{\circ}$ C reference
AD75004	12	4	Parallel, byte	28-lead PLCC	37.74	Fast (4 μ s); on-chip reference
AD5582	12	4	Parallel	48-lead TSSOP	10.12	10-bit/12-bit, pin-compatible
AD664	12	4	Parallel	28-lead PLCC	47.49	Data readback; programmable unipolar/bipolar output and gain
DAC8412	12	4	Parallel	28-lead PLCC	25.23	Reset to midscale
DAC8413	12	4	Parallel	28-lead PLCC	25.23	Reset to zero scale
AD5725 New	12	4	Parallel	28-lead SSOP	6.95	Reset to zero/midscale, single-/dual-supply operation
AD5726 New	12	4	SPI	16-lead SSOP, 16-lead SOIC	6.95	Reset to zero/midscale, single-/dual-supply operation
AD7398	12	4	SPI	16-lead TSSOP	9.72	Low power
DAC8420	12	4	SPI	16-lead QFP	26.06	High accuracy
AD5724 New	12	4	SPI	24-lead TSSOP	5.95	Software-programmable voltage output 5 V, ± 5 V, 10 V, ± 10 V, single-/dual-supply operation
AD5724R New	12	4	SPI	24-lead TSSOP	8.95	Software-programmable voltage output 5 V, ± 5 V, 10 V, ± 10 V, single-/dual-supply operation, 5 ppm/ $^{\circ}$ C reference
AD5504 New	12	4	SPI	16-lead TSSOP	9.92	High voltage, 40 V/80 V, reset to zero, LDAC, CLR, alarm, Rfb
AD5516	12	16	SPI	74-ball CSP_BGA	26.85	<i>dense</i> DAC; 14-bit increment/decrement mode; ± 10 V output range (AD5516-3)
AD7839	13	8	Parallel	44-lead QFP	27.50	<i>dense</i> DAC; ± 10 V output range
AD7840	14	1	Serial, parallel	24-lead SSOP	9.82	High accuracy part; serial and parallel interfaces
AD5531	14	1	SPI	16-lead TSSOP	6.95	± 15 V, 12-bit/14-bit, pin-compatible
AD7244	14	2	SPI $\times 2$	28-lead SOIC	21.61	Fast (4 μ s); on-chip reference
AD5732 New	14	2	SPI	24-lead TSSOP	5.50	Software-programmable voltage output 5 V, ± 5 V, 10 V, ± 10 V, single-/dual-supply operation
AD5732R New	14	2	SPI	24-lead TSSOP	7.50	Software-programmable voltage output 5 V, ± 5 V, 10 V, ± 10 V, single-/dual-supply operation, 5 ppm/ $^{\circ}$ C reference
AD7835	14	4	Parallel	44-lead QFP	22.36	2 sets of 2 reference inputs
AD7836	14	4	Parallel	44-lead QFP	22.35	Separate references and output ground (DUTGND)
AD7834	14	4	SPI	28-lead SOIC	21.25	Common reference inputs
AD5734 New	14	4	SPI	24-lead TSSOP	8.25	Software-programmable voltage output 5 V, ± 5 V, 10 V, ± 10 V, single-/dual-supply operation
AD5734R New	14	4	SPI	24-lead TSSOP	10.95	Software-programmable voltage output 5 V, ± 5 V, 10 V, ± 10 V, single-/dual-supply operation, 5 ppm/ $^{\circ}$ C reference
AD5744 New	14	4	SPI	32-lead TQFP	22.83	± 15 V, 1 LSB INL, on-board reference buffers, gain and offset adjust
AD5744R New	14	4	SPI	32-lead TQFP	28.10	± 15 V, 1 LSB INL, 10 ppm/ $^{\circ}$ C reference, on-board reference buffers, gain and offset adjust
AD7841	14	8	Parallel	44-lead QFP	28.65	<i>dense</i> DAC; ± 10 V output range
AD5363 New	14	8	SPI	52-lead LQFP, 56-lead LFCSP	19.50	<i>dense</i> DAC; user-programmable gain and offset; 20 V output span
AD5361 New	14	16	SPI	52-lead LQFP, 56-lead LFCSP	27.50	<i>dense</i> DAC; user-programmable gain and offset; 20 V output span
AD5535	14	32	SPI	124-ball CSP_BGA	135.00	<i>dense</i> DAC; 200 V output range
AD5532	14	32	SPI	74-ball CSP_BGA	49.95	<i>dense</i> DAC; DAC and infinite-SHA modes; ± 10 V output range (AD5532-2)
AD5532B	14	32	SPI	74-ball CSP_BGA	54.95	<i>dense</i> DAC; improved AD5532; 10 V output span
AD5532HS	14	32	SPI	74-ball CSP_BGA	49.95	<i>dense</i> DAC; faster interface; 5 V output span
AD5378	14	32	SPI, parallel	108-ball CSP_BGA	44.95	<i>dense</i> DAC; user-programmable gain and offset; 17.5 V output span
AD5373 New	14	32	SPI	64-lead LQFP	47.50	<i>dense</i> DAC; user-programmable gain and offset; 20 V output span

Part Number	Bits	Outputs	Interface	Package	Price @ 1k (U.S.)	Description
AD5379	14	40	SPI, parallel	108-ball CSP_BGA	59.75	denseDAC; user-programmable gain and offset; 17.5 V output span
AD5371 New	14	40	SPI, LVDS	80-lead LQFP, 100-ball CSP_BGA	58.50	denseDAC; user-programmable gain and offset; 20 V output span
AD569	16	1	Parallel	28-lead PLCC	25.03	
AD669	16	1	Parallel	28-lead SOIC	15.91	Low cost, full accuracy
AD7846	16	1	Parallel	28-lead PLCC	21.61	
AD660	16	1	Serial, parallel	24-lead SOIC	15.91	High accuracy, serial and parallel interfaces
AD5570	16	1	SPI	16-lead SSOP	14.93	High accuracy, 1 LSB INL, ± 15 V
AD7849	16	1	SPI	20-lead SOIC	8.93	
AD5502 New	16	1	SPI	24-lead TSSOP	9.74	40 V high linearity, 0.1% TUE, programmable ranges
AD5752 New	16	2	SPI	24-lead TSSOP	6.95	Software-programmable voltage output: 5 V, ± 5 V, 10 V, ± 10 V; single-/dual-supply operation
AD5752R New	16	2	SPI	24-lead TSSOP	8.95	Software-programmable voltage output: 5 V, ± 5 V, 10 V, ± 10 V; single-/dual-supply operation, 5 ppm/ $^{\circ}$ C reference
AD5762R New	16	2	SPI	32-lead TQFP	14.40	± 15 V, 1 LSB INL, 10 ppm/ $^{\circ}$ C reference, on-board reference buffers, gain and offset adjust
AD5763 New	16	2	SPI	32-lead TQFP	12.75	± 5 V, 1 LSB INL, on-board reference buffers, gain and offset adjust
AD5754 New	16	4	SPI	24-lead TSSOP	10.05	Software-programmable voltage output 5 V, ± 5 V, 10 V, ± 10 V; single-/dual-supply operation
AD5754R New	16	4	SPI	24-lead TSSOP	12.95	Software-programmable voltage output 5 V, ± 5 V, 10 V, ± 10 V; single-/dual-supply operation, 5 ppm/ $^{\circ}$ C reference
AD5765 New	16	4	SPI	32-lead TQFP	19.75	± 5 V, 1 LSB INL, on-board reference buffers, gain and offset adjust
AD5764 New	16	4	SPI	32-lead TQFP	27.68	± 15 V, 1 LSB INL, on-board reference buffers, gain and offset adjust
AD5764R New	16	4	SPI	32-lead TQFP	31.94	± 15 V, 1 LSB INL, 10 ppm/ $^{\circ}$ C reference, on-board reference buffers, gain and offset adjust
AD5362 New	16	8	SPI	52-lead LQFP, 56-lead LFCSP	23.90	denseDAC, user-programmable gain and offset, 20 V output span
AD5360 New	16	16	SPI	52-lead LQFP, 56-lead LFCSP	29.90	denseDAC, user-programmable gain and offset, 20 V output span
AD5372 New	16	32	SPI	64-lead LQFP	52.90	denseDAC, user-programmable gain and offset, 20 V output span
AD5370 New	16	40	SPI	64-lead LQFP, 64-lead LFCSP	62.90	denseDAC, user-programmable gain and offset, 20 V output span
AD760	18	1	Serial, parallel	28-lead PLCC	65.63	On-chip reference
<i>Current Output (Low and High Voltage, Unipolar and Bipolar Operation)</i>						
AD7111A	0.375	1	Parallel	16-lead SOIC	6.89	Logarithmic DAC (0.375 dB steps)
AD7112	0.375	2	Parallel	20-lead SOIC	7.29	Logarithmic DAC (0.375 dB steps)
AD5424	8	1	Parallel	16-lead TSSOP	1.50	>10 MHz BW, ± 10 V signals
AD7524	8	1	Parallel	16-lead SOIC	3.12	See AD5424, also AD5426, AD5425, and AD5450
AD5426	8	1	SPI	10-lead MSOP	1.40	>10 MHz BW, ± 10 V signals; see AD5425 fast load
AD5450 New	8	1	SPI	8-lead SOT-23	1.40	Small SOT-23 package; see AD5425 fast load; pin- and software-compatible family
AD5425	8	1	SPI, 8-bit load	10-lead MSOP	1.40	>10 MHz BW, ± 10 V signals; see AD5426
AD5428	8	2	Parallel	20-lead TSSOP	1.89	>10 MHz BW, ± 10 V signals
AD5429	8	2	SPI	16-lead TSSOP	1.89	>10 MHz BW, ± 10 V signals
AD7528	8	2	Parallel	20-lead SSOP	5.25	See AD5428, also AD5429, AD5405, and AD5415
AD7628	8	2	Parallel	20-lead SOIC	2.10	Like AD7528 except TTL-compatible at 12 V and 15 V; see AD5424, also AD5426, AD5450, and AD5425
DAC8408	8	4	Parallel	28-lead PLCC	7.78	Individual reference input for each DAC, readback function
AD5398 New	10	1	I ² C	8-lead WLQSP, 8-lead LFCSP	1.51	120 mA current sink with current sensing resistor, reference, inductive flyback protection; for use with a voice coil motor in camera autofocus applications
AD5821 New	10	1	I ² C	8-lead WLQSP	1.51	120 mA current sink with 1.8 V I ² C interface voltage, current sensing resistor, reference, inductive flyback protection; for use with a voice coil motor in camera autofocus applications
AD5433	10	1	Parallel	20-lead TSSOP	2.42	>10 MHz BW, ± 10 V signals
AD7533	10	1	Parallel, unbuffered	16-lead SOIC	3.40	See AD5433, also AD5432 and AD5451
AD5432	10	1	SPI	10-lead MSOP	2.30	>10 MHz BW, ± 10 V signals
AD5451 New	10	1	SPI	8-lead SOT-23	2.30	Small SOT-23 package; pin- and software-compatible family
AD5439	10	2	SPI	16-lead TSSOP	2.80	>10 MHz BW, ± 10 V signals
AD5440	10	2	Parallel	24-lead TSSOP	2.85	>10 MHz BW, ± 10 V signals
AD7548	12	1	Parallel, byte	20-lead SOIC	8.37	Byte wide; see AD5445, also AD5443, AD5452, and AD5444
AD7948	12	1	Parallel, byte	20-lead SSOP	3.95	Improved AD7548; see AD5445, also AD5443, AD5452, and AD5444

Part Number	Bits	Outputs	Interface	Package	Price @ 1k (U.S.)	Description
AD7542	12	1	Parallel, nibble	16-lead SOIC	9.50	Nibble wide; see AD5445, also AD5443, AD5452, and AD5444
AD5445	12	1	Parallel	20-lead TSSOP	2.55	>10 MHz BW, ± 10 V signals
AD7545A	12	1	Parallel	20-lead SOIC	6.66	See AD5445, also AD5443, AD5452, and AD5444
AD7945	12	1	Parallel	20-lead SSOP	3.95	Improved AD7545; see AD5445, also AD5443, AD5452, and AD5444
AD7541A	12	1	Parallel, unbuffered	20-lead PLCC	6.31	Transparent latches; see AD5445, also AD5443, AD5452, and AD5444
AD5443	12	1	SPI	10-lead MSOP	2.50	>10 MHz BW, ± 10 V signals
AD5452 <i>New</i>	12	1	SPI	8-lead SOT-23	2.50	Small SOT-23 package; pin- and software-compatible family
AD7543	12	1	SPI	16-lead SOIC	9.88	See AD5443, also AD5452 and AD5444
AD7943	12	1	SPI	20-lead SSOP	3.95	Improved AD7543; see AD5443, also AD5452 and AD5444
DAC8043A	12	1	SPI	8-lead TSSOP	4.24	>2 MHz bandwidth; see AD5443, also AD5452 and AD5444
AD5441 <i>New</i>	12	1	SPI	8-lead LFCSP	2.47	1 LSB, 1 μ s settling time, LDAC pin; upgrade to DAC8043A
DAC8143	12	1	SPI	16-lead SOIC	5.55	With SDO for daisy-chaining; see AD5443, also AD5452 and AD5444
AD5444 <i>New</i>	12	1	SPI	10-lead MSOP	2.60	Higher accuracy version of AD5443; see also AD5452
AD5410 <i>New</i>	12	1	SPI	24-lead TSSOP, 40-lead LFCSP	3.35	4 mA to 20 mA current output DAC; programmable ranges; 60 V compliance
AD5412 <i>New</i>	12	1	SPI	24-lead TSSOP, 40-lead LFCSP	3.79	4 mA to 20 mA current and voltage output DAC; programmable ranges; 0.1% TUE
AD7537	12	2	Parallel, byte	24-lead SOIC	12.82	See AD5447; also AD5449, AD5405, and AD5415
DAC8248	12	2	Parallel, byte	24-lead SOIC	11.58	See AD5447; also AD5449, AD5405, and AD5415
AD7549	12	2	Parallel, nibble	20-lead PLCC	14.98	Nibble wide; see AD5447; also AD5449, AD5405, and AD5415
AD5447	12	2	Parallel	24-lead TSSOP	3.72	>10 MHz BW, ± 10 V signals
AD5405	12	2	Parallel	40-lead LFCSP	3.78	>10 MHz BW, ± 10 V signals, uncommitted resistors
AD7547	12	2	Parallel	24-lead SOIC	12.84	See AD5447; also AD5449, AD5405, and AD5415
DAC8221	12	2	Parallel	24-lead SOIC	11.73	Like DAC8222 except not double buffered; see AD5447; also AD5449, AD5405, and AD5415
DAC8222	12	2	Parallel	24-lead SOIC	11.58	Like DAC8221 except double buffered; see AD5447; also AD5449, AD5405, and AD5415
AD5449	12	2	SPI	16-lead TSSOP	3.68	>10 MHz BW, ± 10 V signals
AD5415	12	2	SPI	24-lead TSSOP	3.74	>10 MHz BW, ± 10 V signals, uncommitted resistors
AD7564	12	4	SPI	28-lead SSOP	11.90	Individual reference per DAC, LDAC, and CLR pins
AD7568	12	8	SPI	44-lead QFP	23.00	Individual reference and Rfb, LDAC, and CLR pins
AD7534	14	1	Parallel, byte	20-lead PLCC	14.99	Byte wide; see AD5453 and AD5446
AD5556	14	1	Parallel	28-lead TSSOP	5.40	8 MHz BW, ± 15 V signals
AD7535	14	1	Parallel	28-lead PLCC	16.10	Word wide; see AD5453 and AD5446
AD7538	14	1	Parallel	24-lead SOIC	9.31	Word wide; see AD5453 and AD5446
AD5453 <i>New</i>	14	1	SPI	8-lead SOT-23	4.54	Small SOT-23 package; pin- and software-compatible family
AD5553	14	1	SPI	8-lead MSOP	4.55	8 MHz BW, ± 15 V signals
AD5446 <i>New</i>	14	1	SPI	10-lead MSOP	4.54	MSOP version of AD5453; compatible with AD5443, AD5432, and AD5426
AD5557	14	2	Parallel	38-lead TSSOP	6.10	8 MHz BW, ± 15 V signals
AD5555	14	2	SPI	16-lead TSSOP	6.05	8 MHz BW, ± 15 V signals
AD5554	14	4	SPI	28-lead SSOP	12.60	8.5 MHz BW, ± 15 V signals
AD5546	16	1	Parallel	28-lead TSSOP	8.39	8 MHz BW, ± 15 V signals
AD5420 <i>New</i>	16	1	SPI	24-lead TSSOP, 40-lead LFCSP	4.32	4 mA to 20 mA current output DAC; programmable ranges; 60 V compliance
AD5422 <i>New</i>	16	1	SPI	24-lead TSSOP, 40-lead LFCSP	4.95	4 mA to 20 mA current and voltage output DAC; programmable ranges; 0.1% TUE
AD5543	16	1	SPI	8-lead MSOP	7.10	8 MHz BW, ± 15 V signals
AD5547	16	2	Parallel	38-lead TSSOP	8.60	8 MHz BW, ± 15 V signals
AD5545	16	2	SPI	16-lead TSSOP	8.40	8 MHz BW, ± 15 V signals
AD5544	16	4	SPI	28-lead SSOP	16.90	8.5 MHz BW, ± 15 V signals

Conversion Factors

Bits	2 ⁿ	ppm	%	SNR (dB)
0	1	1,000,000.00	100.0000000	1.76
1	2	500,000.00	50.0000000	7.78
2	4	250,000.00	25.0000000	13.80
3	8	125,000.00	12.5000000	19.82
4	16	62,500.00	6.2500000	25.84
5	32	31,250.00	3.1250000	31.86
6	64	15,625.00	1.5625000	37.88
7	128	7812.50	0.7812500	43.91
8	256	3906.25	0.3906250	49.93
9	512	1953.13	0.1953125	55.95
10	1024	976.56	0.0976563	61.97
11	2048	488.28	0.0488281	67.99
12	4096	244.14	0.0244141	74.01
13	8192	122.07	0.0122070	80.03
14	16,384	61.04	0.0061035	86.05
15	32,768	30.52	0.0030518	92.07
16	65,536	15.26	0.0015259	98.09
17	131,072	7.63	0.0007629	104.11
18	262,144	3.81	0.0003815	110.13
19	524,288	1.91	0.0001907	116.15
20	1,048,576	0.95	0.0000954	122.17
21	2,097,152	0.48	0.0000477	128.19
22	4,194,304	0.24	0.0000238	134.21
23	8,388,608	0.12	0.0000119	140.23
24	16,777,216	0.06	0.0000060	146.26

Quantization Size of LSB

		INL LSB	ppm FS	INL % FS	3.3 V INL (μV)	5 V INL (μV)	±5 V INL (μV)	±10 V INL (μV)	Accuracy (Bits)
Resolution (Bits)	16	1	15	0.0015%	50	76	153	305	16
		2	31	0.0031%	101	153	305	610	15
		4	61	0.0061%	201	305	610	1221	14
		8	122	0.0122%	403	610	1221	2441	13
		16	244	0.0244%	806	1221	2441	4883	12
	14	1	61	0.0061%	50	305	153	1221	14
		2	122	0.0122%	101	610	305	2441	13
		4	244	0.0244%	201	1221	610	4883	12
		8	488	0.0488%	403	2441	1221	9766	11
		16	977	0.0977%	806	4883	2441	19,531	10
	12	1	244	0.0244%	50	1221	153	4883	12
		2	488	0.0488%	101	2441	305	9766	11
		4	977	0.0977%	201	4883	610	19,531	10
		8	1953	0.1953%	403	9766	1221	39,063	9
		16	3906	0.3906%	806	19,531	2441	78,125	8
	10	1	977	0.0977%	50	4883	153	19,531	10
		2	1953	0.1953%	101	9766	305	39,063	9
		4	3906	0.3906%	201	19,531	610	78,125	8
		8	7813	0.7813%	403	39,063	1221	156,250	7
		16	15,625	1.5625%	806	78,125	2441	312,500	6

Package Designators

KS = SC70, N = DIP, R = SOIC, P = PLCC, Q = CerDIP, RS = SSOP, RU = TSSOP, RT/RJ = SOT, RM = MSOP, RQ = QSOP, CP = QFN/DFN/LFCSP, SU = TQFP, BC = BGA, S = MQFP/PQFP, ST = LQFP, CB = WLCSP

The smallest package is shown, other packages may be available—check data sheet for availability. This is a guide only; always refer to the latest data sheet. Price in U.S. dollars is given as guidance only for 1000 units (lowest grade) F.O.B. U.S.A. Please see other Analog Devices selection guides for high speed DACs, digital potentiometers, amplifiers, and references. We reserve the right to make changes to specifications, prices, and availability.