

High Speed Amplifiers

Part Number				Disable	Supply Voltage					Rail-to-Rail		A _{CL} Min	BW @ A _{CL} (MHz)	Slew Rate (V/s)	Distortion SFDR ¹ @ BW		Noise (nV/√Hz)	V _{OS} Max (mV)	I _B Max (μA)	I _C /Amp Typ (mA)	I _{OUT} (mA)	Temp Range ²	SC70	SOT-23	SOIC	LFCSP	TSSOP	MSOP	Price @ 1k ³ (DEM \$U.S.)
Single	Dual	Triple	Quad		3 V	5 V	±5 V	±12 V	±15 V	In	Out				(dBc)	(MHz)													
<i>Low Cost</i>																													
ADA4851-1	ADA4851-2		ADA4851-4	•	2.7	•	•			•	1	105	375	-83 ⁴	1	10	3.5	4	2.9	90	H ⁵	•			•	•	0.56/0.70/1.10		
AD8038	AD8039			•	•	•	•				1	350	425	-90	1	8	3	0.75	1	20	I	•	•	•			0.86/1.21		
AD8061/AD8063	AD8062			•	2.7	8				•	1	320	650	-62	5	8.5	6	9	6.8	50	I		•	•		•	0.55/0.55/1.50		
AD8055	AD8056						•				1	300	1400	-72	10	6	5	1.2	5.4	60	H ⁵	•	•		•	0.86/1.62			
AD8057	AD8058				•	•	•				1	325	1150	-68 ⁴	5	7	5	2.5	6	30	I		•	•		•	0.86/1.62		
ADA4857-1	ADA4857-2			•	•	•					1	850	2800	-88	10	4.4	4.5	3.3	5	50	H		•	•			1.49/2.53		
ADA4891-1	ADA4891-2	ADA4891-3	ADA4891-4	•	2.7	•				•	1	240	170	-79	1	10	10	50 pA	4.4	150	H		•	•		•	0.49/0.69/0.89/1.09		
<i>Rail-to-Rail</i>																													
ADA4508-1	ADA4805-2			•	•	•	•			•	1	100	160	-106	0.1	6	0.2	0.6	0.48	50	H	•	•		•	•	0.95/1.59		
AD8031	AD8032				2.7	•	•			•	1	80	35	-77	0.5	15	1.5	1.2	0.9	15	I		•			•	1.32/1.97		
ADA4853-1	ADA4853-2	ADA4853-3		•	•	•				•	1	100	120	-90 ⁴	1	22	4	1.6	1.4	120	H ⁵	•			•	•	0.70/0.98/1.19		
		ADA4855-3		•	•	•				•	1	410	870	-84	5	6.8	3	3.8	7.8	40	H				•		1.39		
		ADA4856-3		•	•	•				•	2	225	800	-92	5	14	3.4	3.8	7.8	7.5	H				•		1.39		
AD8091	AD8092			•	•	•				•	1	110	145	-71 ⁴	5	16	10	2.5	4.4	45	I		•	•		•	0.82/0.90		
AD8051	AD8052		AD8054	•	•	•				•	1	110	170	-72 ⁴	5	16	11	2.5	4.8	45	H		•	•		•	0.86/1.62/2.88		
AD8029	AD8030		AD8040	•	2.7	•	•			•	1	125	62	-74	1	16.5	5	1.3	1.3	20	H	•		•		•	0.86/1.21/1.62		
AD8041	AD8042		AD8044	•	•	•				•	1	170	225	-78 ⁴	5	15	9.8	3.2	6	50	I		•				1.95/2.28/4.00		
ADA4850-1	ADA4850-2			•	2.7	•				•	1	175	220	-81 ⁴	1	10	4.2	4.2	2.5	90	H				•		0.56/0.70		
AD8027	AD8028			•	•	•	•			•	1	190	100	-120	1	4.3	0.9	6	6.5	25	H ⁵		•	•		•	1.20/1.91		

¹Spurious-free dynamic range—distortion @ worst harmonic.

²Temperature ranges: I = industrial (-40°C to +85°C), H = extended industrial (-40°C to +105°C/+125°C).

³USD 1000s, recommended resale, FOB U.S.

⁴THD—total harmonic distortion.

⁵Recommended for automotive.

⁶Referred to output.

Part Number				Disable	Supply Voltage					Rail-to-Rail		A _{CL} Min	BW @ A _{CL} (MHz)	Slew Rate (V/s)	Distortion SFDR ¹ @ BW		Noise (nV/√Hz)	V _{OS} Max (mV)	I _q Max (μA)	I _q /Amp Typ (mA)	I _{OUT} (mA)	Temp Range ²	SC70	SOT-23	SOIC	LFCSP	TSSOP	MSOP	Price @ 1k ³ (DEM \$U.S.)
Single	Dual	Triple	Quad		3 V	5 V	±5 V	±12 V	±15 V	In	Out				(dBc)	(MHz)													
<i>Low Noise, Low Distortion</i>																													
ADA4807-1	ADA4807-2		ADA4807-4	•	•	•	•		•	•	1	160	300	-112	0.1	3	0.2	6	0.95	30	H	•	•	•	•	•	•	1.33/2.19/3.05	
AD8099				•	•	•					2	700	1350	-92 ⁴	10	0.95	0.5	1	15	40	H ⁵			•	•			2.00	
ADA4841-1	ADA4841-2			•	2.7	•	•				1	80	13	-105	0.1	2.1	0.5	5.3	1.2	60	H ⁵		•	•	•	•		1.61/2.32	
	ADA4895-2			•	•	•	•				10	236	943	-96	0.1	2	0.35	16	3	72	H					•		3.21	
	ADA4896-2			•	•	•	•				1	230	120	-115	0.1	1	0.5	17	3	80	H ⁵			•	•	•		3.21	
ADA4897-1	ADA4897-2			•	•	•	•				1	230	120	-115	0.1	1	0.5	17	3	80	H ⁵		•	•		•		1.89/3.21	
AD8021				•	•	•	•				1	560	130	-93 ⁴	1	2.1	1	11.3	7.8	70	I			•		•		1.31	
	AD8022				•	•	•				1	130	50	-95	1	2.5	6	5	4	55	I			•		•		2.38	
AD8045					•	•					1	1000	1350	-95	10	3	1	6.3	16	70	H ⁵			•	•			1.41	
AD8048					•	•					2	260	1000	-72	5	3.8	3	3.5	6.6	50	I			•				2.30	
ADA4857-1	ADA4857-2			•	•	•					1	850	2800	-108 ⁴	1	4.4	1	1.65	5	50	H			•	•			1.49/2.53	
AD8047					•	•					1	250	750	-78	5	5.2	3	3.5	6.6	50	I			•				2.53	
<i>FastFET™</i>																													
ADA4817-1	ADA4817-2			•	•	•					1	1050	870	-90	10	4	2	20 pA	19	40	H			•	•			2.95/4.98	
AD8067					•	•	•				8	54	500	-95	1	6.6	1	5 pA	6.6	30	I		•					1.89	
AD8065	AD8066				•	•	•				1	145	180	-88	1	7	1.5	7 pA	6.4	35	I		•			•		1.61/2.32	
AD8033	AD8034				•	•	•				1	80	80	-82 ⁴	1	11	2	11 pA	3.3	25	I	•	•					1.03/1.61	
	AD823A			•	•	•	•	±18			1	17	30	-110 ⁴	0.2	14	0.7	25 pA	5.1	40	I			•		•		2.39	
<i>High Output Current</i>																													
	AD8397			•	•	•	•				1	69	53	-87	0.1	4.5	1	2	5.5	310	I			•				2.32	
AD8390				•		•	•				5	60	300	-82 ⁴	1	8	3	7	3.8	400	I				•			Last time buy	
			AD8392	•		•	•				1	40	900	-72 ⁴	1	4.3	5	15	3.6	400	I				•	•		Obsolete, replacement: AD8392A	
<i>High Supply Voltage</i>																													
AD829					•	•	•				1	120	150	-55 ⁴	1	1.7	1	7	5	32	H			•				3.27	
AD818	AD828				•	•	•	•			2	130	450	-78 ⁴	1	10	2	6.6	7	50	I			•				1.96/2.43	
ADA4898-1	ADA4898-2			•		•	•	•			1	65	55	-116	0.1	0.9	0.15	0.5	7.7	40	H			•				2.29/3.21	
AD844					•	•	•	±18			2	60	2000	-86 ⁴	0.1	2	0.3	0.45	6.5	50	H			•				2.78	
AD847	AD827				•	•	•	•			1	50	300	-92 ⁴	0.1	15	2	7	4.8	32	H/I			•				2.86/5.89	
AD817	AD826				•	•	•	•			1	50	350	-78 ⁴	1	15	2	6.6	7	50	I			•				1.76/2.43	

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Voltage Feedback (continued)

Part Number				Disable	Supply Voltage					Rail-to-Rail		A _{CL} Min	BW @ A _{CL} (MHz)	Slew Rate (V/s)	Distortion SFDR ¹ @ BW		Noise (nV/√Hz)	V _{OS} Max (mV)	I _S Max (μA)	I _S /Amp Typ (mA)	I _{OUT} (mA)	Temp Range ²	SC70	SOT-23	SOIC	LFCSP	TSSOP	MSOP	Price @ 1k ³ (OEM \$U.S.)
Single	Dual	Triple	Quad		3 V	5 V	±5 V	±12 V	±15 V	In	Out				(dBc)	(MHz)													
<i>Low Cost</i>																													
ADA4860-1				•	•	•					1	800	790	-75 ⁴	10	4	13	10	6	85	I		•						0.56
		ADA4861-3		•	•	•					1	730	680	-68 ⁴	10	3.8	13	13	6	100	I		•						0.96
		ADA4862-3		•	•	•					2	500	1050	-68 ⁴	10	10.6	25	1	5.5	75	I		•						0.96
AD8014					•	•					1	480	4000	-70 ⁴	5	3.5	5	15	1.1	50	I		•	•					1.20
	AD8072	AD8073			•	•					1	100	500	-64 ⁴	5	3	6	12	3.5	30	I		•		•				1.67/2.18
<i>High Performance</i>																													
AD8000		AD8003		•	•	•					1	1500	4100	-75	20	1.6	10	45	13.5	100	H ⁵		•	•					1.70/2.92
AD8009					•	•					1	1000	5500	-38	20	1.9	5	150	14	175	I		•	•					1.77
AD8001	AD8002					•					1	880	1000	-66	5	2	5.5	25	5	70	I		•	•					1.51/2.86
AD8007	AD8008				•	•					1	650	1000	-83	20	2.7	4	8	9	30	I	•	•	•		•			1.33/2.22
AD8011					•	•					1	400	3500	-75 ⁴	5	2	5	15	1	30	I		•						2.30
	AD8012				•	•					1	350	2250	-66	5	2.5	4	12	1.7	125	I		•			•			2.17
		AD8023		•	•	•					1	400	1200	-78 ⁴	5	2	5	45	6.2	70	I		•						5.20
AD8005					•	•					1	270	1500	-53 ⁴	5	4	30	10	0.4	10	I		•						1.64
		AD8004			•	•					1	250	3000	-78 ⁴	5	1.5	3.5	90	3.5	50	I		•						4.40
	ADA4310-1			•	•	•					2	190	820	-95 ⁴	1	2.9	1	6	7.6	250	I			•		•			1.05
	AD8017				•	•					1	160	1600	-78	0.5	1.9	3	67	7	270	I		•						2.25
		AD8013		•	•	•					1	140	1000	-76 ⁴	5	3.5	5	15	4	30	I		•						4.88
<i>With Charge Pump</i>																													
		ADA4858-3		•	•	•					1	600	600	-71	5	4	14	13	19	21	H				•				1.69
		ADA4859-3		•	•	•					2	195	740	-70	5	17 ⁶	4.5	2	17	19	H				•				1.69
<i>Buffers</i>																													
		AD8074		•		•					1	600	1600	-80 ⁴	5	19.5	27	9.5	7.2	70	I				•				2.22
		AD8075		•		•					2	550	1350	-74 ⁴	5	22	40	10	8	70	I				•				2.22
	AD8079				•						2	260	800	-78 ⁴	5	2	15	6	5	70	I		•						4.56

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Single	Dual	Triple	Quad		3 V	5 V	±5 V	±12 V	±15 V	In	Out				(dBc)	(MHz)													
<i>Clamp Amplifiers</i>																													
<i>Output Clamps</i>																													
	AD8037						•					2	270	1500	-77 ⁴	10	4.5	7	9	18.5	70	I				•			4.17
	AD8036						•					1	240	1200	-81 ⁴	10	6.7	7	10	20.5	70	H/I				•			4.33
<i>Drivers</i>																													
	ADA4927-1	ADA4927-2				•	•	•				1	2300	5000	-87	100	1.4	1.3	15	20	65	H				•			3.79/6.29
	ADA4930-1	ADA4930-2				•	•	•				1	1350	3400	-75	100	1.2	3.1	16.8	34	30	H				•			3.79/6.59
	ADA4932-1	ADA4932-2				•	•	•	•			1	560	2800	-90	20	3.6	2.2	5.2	9.6	80	H				•			2.95/5.29
	ADA4937-1	ADA4937-2				•	•	•				1	1900	6000	-84	70	2.2	2.5	30	39.5	100	I				•			3.79/5.69
	ADA4938-1	ADA4938-2				•	•	•				1	1000	4700	-82	50	2.6	1	18	37	75	I				•			3.79/5.69
	ADA4939-1	ADA4939-2				•	•	•				2	1400	6800	-77	100	2.3	3.4	26	36.5	100	H				•			3.79/5.69
	ADA4950-1	ADA4950-2				•	•	•	•			1	750	2900	-98	20	9.2 ⁶	2.5	N/A	9.5	114	H				•			2.99/5.29
	ADA4960-1					•	•					2	5000	8700	-73	1000	4.8	20	20	60	17.5	I				•			6.95
<i>Differential</i>	AD8139					•	•	•			•	1	410	800	-85	5	2.25	0.5	8	24.5	100	H ⁵				•	•		3.75
	AD8131					•	•	•				2	400	2000	-68	5	25	7	6	11.5	60	H				•		•	1.82
	AD8132					•	•	•				1	350	1200	-83	5	8	3.5	7	12	70	H ⁵				•		•	1.67
	AD8138					•	•	•				1	320	1150	-85	20	5	2.5	7	20	95	I				•		•	3.75
	AD8137					•	•	•	•		•	1	110	450	-90	0.5	8.25	2.6	1	3.2	20	H ⁵				•	•		1.10
	ADA4922-1					•	•	•	•			2	38	260	-99	0.1	12 ⁶	1.1	3.5	9.4	40	I				•	•		3.63
	ADA4941-1					•	•	•	•		•	2	31	24.5	-110 ⁴	0.1	10.2 ⁶	0.8	3	2.3	25	I				•	•		2.42
	ADA4940-1	ADA4940-2					•	•	•		•	1	260	95	-96	1	3.9	0.4	1.6	1.25	46	H ²				•	•		1.59/2.59
	<i>Receivers</i>																												
		ADA4830-1	ADA4830-2				•	•	•		•	0.5	85	250	-74	5	28	50	N/A	6.8	125	H ⁵				•			
	AD8130					•	•	•	•			1	270	1090	-74 ⁴	5	12.5	1.8	3.5	10.8	40	I				•		•	1.57
	AD8129					•	•	•	•			10	200	1060	-68 ⁴	5	4.5	0.8	3.5	10.8	40	I				•		•	1.57

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