

High Speed Amplifiers

Part Number				Disable	Supply Voltage					Rail-to-Rail		A _{CL} Min	BW @ A _{CL} (MHz)	Slew Rate (V/μs)	Distortion SFDR ¹ @ BW		Noise (nV/√Hz)	V _{OS} (mV Max)	I _B (μA Max)	I _S /Amp (mA Typ)	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)													
Low Cost																													
AD8038	AD8039			•	•	•					1	350	425	-90	1	8	3	0.75	1	20	I	•	•					0.85/1.20	
AD8055	AD8056					•					1	300	1400	-85	5	6	5	1	5	60	H		•				•	0.85/1.60	
AD8057	AD8058				•	•	•				1	325	1150	-85 ⁴	5	7	5	2	6	30	I		•				•	0.85/1.60	
ADA4853-1	ADA4853-2	ADA4853-3		•	•	•				•	1	100	120	-83	1	22	3	1.6	1.4	120	I	•		•	•			0.55/0.69/0.85	
AD8091	AD8092				•	•	•			•	1	110	140	-75	5	16	10	2.5	4.8	45	I		•				•	0.69/0.89	
Rail-to-Rail																													
AD8027	AD8028			•	•	•	•			•	•	1	190	100	-120	1	4.3	0.9	10.5	8.5	25	H		•			•	1.19/1.89	
AD8029	AD8030		AD8040	•	2.7	•	•			•	•	1	125	60	-74	1	16	5	1.3	1.3	20	H	•	•			•	0.85/1.20/1.60	
AD8031	AD8032				2.7	•	•			•	•	1	80	32	-64 ⁴	1	15	2	1.4	0.8	15	I		•			•	1.30/1.95	
AD8041				•	•	•	•			•	1	160	160	-77 ⁴	5	16	7	3.2	5.8	50	I		•	•				1.75	
	AD8042				•	•	•			•	1	160	200	-73 ⁴	5	15	9	3.2	5.5	50	I			•				2.25	
			AD8044		•	•	•			•	1	160	190	-72 ⁴	5	16	16	4.5	11	30	I			•				3.95	
AD8051	AD8052		AD8054		•	•	•			•	1	110	140	-75	5	16	10	2.5	4.8	45	H			•			•	0.85/1.60	
ADA4850-1	ADA4850-2			•	2.7	•				•	1	175	220	-72	1	10	4	4.4	2.4	90	H			•				0.55/0.69	
ADA4851-1	ADA4851-2		ADA4851-4	•	•	•	•			•	1	130	375	-83	1	10	3.3	4	2.7	90	H		•		•	•		0.55/0.69/1.09	
AD8061/AD8063	AD8062			•	2.7	8				•	1	300	800	-77	5	8.5	6	10	6.8	50	I		•	•				0.85/1.60	
Low Noise, Low Distortion																													
AD8021				•		•	•	•			1	200	100	-92	1	2.1	1	10	7	60	I						•	1.29	
AD8047						•	•				1	250	750	-61	10	5.2	3	3.5	6.6	50	I			•				2.27	
AD8048						•	•				2	260	1000	-61	10	3.8	3	3.5	6.6	50	I			•				2.27	
	AD8022					•	•	•			1	75	100	-94	1	2.5	5	5	3.5	55	I					•		2.35	
ADA4899-1				•		•	•				1	600	310	-80	10	1	0.23	1	15	40	H			•	•			1.89	
ADA4841-1	ADA4841-2			•	2.7	•	•			•	1	80	15	-112	0.1	2	0.5	3	1.2	60	H		•	•			•	1.59/2.29	
AD8045						•	•				1	1000	1350	-96	10	3	1	6.6	15	70	H			•				1.39	
AD8099				•		•	•				2	700	1350	-92	10	0.95	1	1	15	40	H			•	•			1.98	
FastFET																													
	AD823				•	•	•	•	±18		•	1	16	25	-70	0.1	16	3.5	30 pA	7	15	I			•				2.63
AD8033	AD8034					•	•	•			•	1	80	80	-81	1	11	2	10 pA	3.3	25	I	•	•					1.19/1.59
AD8065	AD8066					•	•	•			•	1	145	180	-88	1	7	1.5	10 pA	6.4	30	I		•			•	1.59/2.19	
AD8067						•	•	•			•	8	60	500	-90	1	7	1	5 pA	6.4	30	I		•				2.29	
High Output Current																													
	AD8017					•	•				1	160	1600	-76	1	1.8	3	67	7	270	I			•					2.36
	ADA4310-1			•		•					2	190	820	-95	1	2.9	3	12	7.6	250	I			•		•			1.43
AD8390				•		•	•	•			5	60	300	-82	1	8	3	7	4.5	400	I			•					2.36
	AD8397				•	•	•	•		•	1	65	55	-87	0.1	4.5	1	1	9	230	I			•					2.29
			AD8392	•		•	•				1	65	900	-72	1	4.3	5	15	5.4	400	I			•	•				3.89

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

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

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

⁴THD—total harmonic distortion.

⁵Referred to output.

For more information on ADI High Speed Amplifiers, visit our website at www.analog.com/opamps.



	Part Number				Disable	Supply Voltage					Rail-to-Rail		A _{CL} Min	BW @ A _{CL} (MHz)	Slew Rate (V/μs)	Distortion SFDR ¹ @ BW		Noise (nV/√Hz)	V _{OS} (mV Max)	I _b (μA Max)	I _e /Amp (mA Typ)	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)															
Voltage Feedback (continued)	High Supply Voltage																															
	AD817	AD826				•	•	•	•			1	50	350	-78	1	15	2	6.6	7	50	I							•	1.58/2.18		
	AD818	AD828				•	•	•	•			2	130	450	-78	1	10	2	6.6	7	50	I							•	1.76/2.18		
	AD827	AD847						•	•	•		1	35	300	-92	0.1	15	2	7	10	32	H/I							•	5.29/2.60		
	AD829							•	•	•		1	600	150	-55	1	1.7	1	7	6.5	32	H							•	2.50		
AD844							•	•	±18		2	60	2000	-86	0.1	2	0.3	0.45	8.5	50	I							•	2.90			
Current Feedback	Low Cost																															
	ADA4860-1				•	•	•					1	520	790	-75	10	4	13	10	6	85	I			•					0.55		
		ADA4861-3			•	•	•					1	370	680	-75	10	3.8	13	13	6	100	I							•	0.95		
		ADA4862-3			•	•	•					2	500	1000	-75	5	7	6	25	5.5	75	H							•	0.95		
	AD8014					•	•					1	400	4000	-70	5	3.5	5	15	1.1	50	I			•					1.19		
		AD8072	AD8073				•	•					1	200	500	-64	5	3	6	12	3.5	30	I							•	1.50/1.95	
	High Performance																															
	AD8000		AD8003		•	•	•						1	1500	4100	-86	5	1.6	10	45	13.5	100	H				•	•			1.68/2.89	
	AD8001	AD8002					•						1	600	1200	-66	5	2	6	25	5	70	I			•				•	1.35/2.57	
			AD8004				•	•					1	250	3000	-78	5	1.5	4	90	3.5	50	I							•	3.95	
AD8005						•	•					1	270	1500	-53	5	4	30	10	0.4	10	I			•					1.47		
AD8007	AD8008					•	•					1	650	1000	-83	20	2.7	4	8	9	30	I	•	•						1.19/1.99		
AD8009						•	•					1	1000	5500	-54	100	1.9	7	150	14	175	I			•					1.59		
AD8011						•	•	•				1	400	3500	-75	5	2	5	15	1	30	I					•			2.27		
		AD8013		•	•	•						1	140	1000	-80	5	3.5	5	15	4	30	I							•	4.38		
		AD8023		•	•	•						1	400	1200	-78	5	2	5	45	6.2	70	I							•	4.67		
Fixed Gain	Buffers																															
			AD8074		•		•					1	500	1400	-80	5	25	27	9	7.3	70	I						•		2.65		
			AD8075		•		•						2	450	1800	-74	5	25	40	10	8.3	70	I						•		2.65	
		AD8079				•						2	260	800	-78	5	2	15	6	5	70	I					•			4.10		
Clamp Amplifiers	AD8036						•					1	240	1200	-65	10	6.7	7	10	20.5	70	I						•		4.28		
	AD8037						•					2	270	1500	-60	10	4.5	7	9	18.5	70	I						•		4.12		
Differential	Drivers																															
	AD8131					•	•	•				2	400	2000	-77	20	13	5	6	8	60	I							•	1.80		
	AD8132					•	•	•				1	350	1200	-99	5	8	4	7	10.7	70	I							•	1.65		
			AD8133		•		•	•					2	225	1600	-64	10	RTO ⁵	RTO ⁵	—	8.7	90	I							•	2.59	
			AD8134		•		•	•					2	450	1600	-82	10	25 RTO ⁵	24 RTO ⁵	—	31	90	I							•	2.59	
	ADA4941-1				2.7	•	•				•	2	32	26	-109	0.1	10.2 RTO ⁵	0.1	3	2.5	25	H					•	•			2.39	
	ADA4922-1						•	•				2	40	220	-123	0.01	12 RTO ⁵	0.4	2	7	40	I					•	•			3.59	
	ADA4937-1					•		•				1	1600	5000	-103	10	2.2	1.0	50	36	95	I							•		3.79	
	ADA4938-1					•		•	•			1	1000	4700	-108	10	2.2	1.0	3.5	36	95	I							•		3.79	
	AD8137					•	•	•	•		•	1	110	450	-90	0.5	6.7	2.6	1	2.3	20	H						•	•			1.09
	AD8138						•	•	•			1	310	1150	-94	5	5	3	5	20	95	I							•		3.75	
	AD8139						•	•	•		•	1	410	800	-98	1	1.85	0.5	7.2	21.5	100	H						•	•			3.59
	Receivers																															
AD8129				•		•	•	•				10	200	1100	-68	5	4.5	1	3	11	40	I							•	1.55		
AD8130				•		•	•	•				1	270	1100	-74	5	12.5	2	3	11	40	I							•	1.55		
		AD8143				•	•	•				1	230	1000	-68	1	14	4	2.7	39	40	I						•			2.55	

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