Amplifiers

Instrumentation Amplifiers

Mfr.'s Type	Gain Range	Gain Error ±% Max. (G=1)	Gain TC ppm/°C Max. (G=1)	Nonlinearity % Max. (G=1)	Input Offset (V µV Max.)	Input Offset Current (nA Max.)	Voltage Noise @ 1 kHz nV√Hz RTI Typ.	Slew Rate (V/µs Typ.) (G=1)	Power Supply Range ±V
AD524CD	1-1 k	0.02	5	0.003	50	±10.0	7	5.00	6.0 to 18.0
AD524BD	1-1 k	0.03	5	0.005	100	±15.0	7	5.00	6.0 to 18.0
AD524AD	1-1 k	0.05	5	0.010	250	±35.0	7	5.00	6.0 to 18.0
AD526JN	1, 2, 4, 8, 16	0.05	2	0.005	1500	—	30	6.00	4.5 to 16.5
AD620BN	1-10 k	0.02	–50 (G ≤ 1 k)	0.004 (G ≤ 1 k)	50	0.5	9	1.20	2.3 to 18.0
AD620BR	1-10 k	0.02	–50 (G ≤ 1 k)	0.004 (G ≤ 1 k)	50	0.5	9	1.20	2.3 to 18.0
AD620AN	1-10 k	0.10	–50 (G ≤ 1 k)	0.004 (G ≤ 1 k)	125	1.0	9	1.20	2.3 to 18.0
AD620AR	1-10 k	0.10	–50 (G ≤ 1 k)	0.004 (G ≤ 1 k)	125	1.0	9	1.20	2.3 to 18.0
AD621BN	10-100	0.05 (G = 10 or 100)	5 (G = 10)	0.001 (G = 10)	125	0.5	13	1.20	2.3 to 18.0
AD621AN	10-100	0.15 (G = 10 or 100)	5 (G = 10)	0.001 (G = 10)	250	1.0	13	1.20	2.3 to 18.0
AD621AR	10-100	0.15 (G = 10 or 100)	5 (G = 10)	0.001 (G = 10)	250	1.0	13	1.20	2.3 to 18.0
AD624CD	1-1 k	0.02	5	0.001	25	±10.0	4	5.00	6.0 to 18.0
AD624BD	1-1 k	0.03	5	0.003	75	±15.0	4	5.00	6.0 to 18.0
AD624AD	1-1 k	0.05	5	0.005	200	±35.0	4	5.00	6.0 to 18.0
AD625AD	1-10 k	0.05	5 (G ≤ 1 k)	0.005 (G ≤ 256)	200	±35.0	4	5.00	6.0 to 18.0
AD625JN	1-10 k	0.05	5 (G ≤ 1 k)	0.005 (G ≤ 256)	200	±35.0	4	5.00	6.0 to 18.0
AD626AN	10-100	1.00 (G = 10)	50 (G = 10)	0.016 (G = 10)	250	—	250	0.22	ss 2.4-10.0
AMP01EX	0.1-10 k	0.60 (G = 1-1 k)	10 (G ≤ 1 k)	0.010	50	1.0	5	4.50	4.5 to 18.0
AMP01FX	0.1-10 k	0.80 (G = 1-1 k)	15 (G ≤ 1 k)	0.015	100	1.0	5	4.50	4.5 to 18.0
AMP02EP	1-10 k	0.02	50 (G ≤ 1 k)	0.006 (G ≤ 1 k)	100	5.0	9	6.00	4.5 to 18.0
AMP02FP	1-10 k	0.05	50 (G ≤ 1 k)	0.006 (G ≤ 1 k)	200	10.0	9	6.00	4.5 to 18.0
AMP04FP	1-1 k	0.75	50	0.005 typ.	300	10.0	270	0.12	+4.5 to +36.0

Low Current Noise Amplifiers

Mfr.'s Type	Ib pA Max.	In f = 1 kHz fA/√Hz	Input Impedance Differential Ω||pF Typ.	Input Impedance Common Mode Ω||pF Typ.	CMRR dB f=1 kHz Typ.	Vos mV Max.	Vos TC µV/°C Max.	BW MHz Typ.	Single Dual
AD549LH	0.06	0.11	10E13||1	10E15||0.8	100	0.50	10.0	1.0	S
AD549KH	0.10	0.16	10E13||1	10E15||0.8	100	0.25	5.0	1.0	S
AD549JH	0.25	0.22	10E13||1	10E15||0.8	90	1.00	20.0	1.0	S
AD546JN	1.00	0.40	10E13||1	10E15||0.8	90	2.00	100.0	1.0	S
AD645AH	5.00	0.60	10E12||1	10E14||2.2	110	0.50	5.0	2.0	S
AD548JN	20.00	1.80	1X10E12||3	3X10E12||3	90	2.00	20.0	1.0	S
AD648JN	20.00	1.80	1X10E12||3	3X10E12||3	76	2.00	20.0	1.0	D
AD648JR	20.00	1.80	1X10E12||3	3X10E12||3	76	2.00	20.0	1.0	D
OP249GP	75.00	3.00	10E12||6	—	90	2.00	25.0	4.7	D
OP249GS	75.00	3.00	10E12||6	—	90	2.00	25.0	4.7	D
AD744JN	100.00	10.00	3X10E12||5.5	3X10E12||5.5	88	1.00	20.0	13.0	S
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Low/Micro Power Amplifiers

Mfr.'s Type	ISY Max. (mA)	Vos Max. (mV)	Ib Max. (nA)	GBW Typ. (MHz)	SR Typ. (V/µs)	Single Dual Quad
OP90GP	0.015	0.450	25.00	0.020	—	S
OP290GP	0.030	0.500	25.00	0.020	—	D
OP490GP	0.060	1.000	25.00	0.020	—	Q
OP196GS	0.060	300.000	35.00	0.350	0.250	S
OP296GS	0.060	300.000	35.00	0.350	0.250	D
OP282GS	0.500	3.000	0.10	4.000	9.000	D
AD705JN	0.600	0.090	0.15	0.800	0.150	S
OP97EP	0.600	0.025	±0.10	0.900	0.200	S
OP297GP	0.625	0.200	±0.20	0.500	0.150	D
OP497GP	2.500	0.150	0.20	0.500	0.150	Q
OP497GS	2.500	0.150	0.20	0.500	0.150	Q
AD706JN	1.200	0.100	0.20	0.800	0.150	D
AD706JR	1.200	0.100	0.20	0.800	0.150	D
AD704JN	2.400	0.150	0.27	0.800	0.100	Q
AD704JR-16	2.400	0.150	0.27	0.800	0.100	Q

Low Voltage Noise Amplifiers

Mfr.'s Type	Voltage Noise en Typ. 1 kHz nV√Hz	Voltage Noise en Typ. 10 kHz nV√Hz	Current Noise In. ±In.-Typ. 1 kHz pA√Hz	Ib Typ. (nA)	Vos Typ. (mV)	GBW Typ. (MHz)	SR Typ. (V/µs)	Single Dual Quad
AD797AN	0.9	0.9	2.0	800	0.025	110.00	18.0	S
AD797AR	0.9	0.9	2.0	800	0.025	110.00	18.0	S
OP27EP	3.0	3.5	0.4	±10	0.010	8.00	2.8	S
OP27EZ	3.0	3.5	0.4	±10	0.010	8.00	2.8	S
OP27FP	3.0	3.5	0.4	±12	0.020	8.00	2.8	S
OP37EP	3.0	3.5	0.4	±10	0.010	63.00	17.0	S
OP37EZ	3.0	3.5	0.4	±10	0.010	63.00	17.0	S
OP27GP	3.2	3.5	0.4	±15	0.030	8.00	2.8	S
OP27GS	3.2	3.5	0.4	±15	0.030	8.00	2.8	S
OP37GP	3.2	3.5	0.4	±15	0.030	63.00	17.0	S
OP184FP	3.9	—	0.4	60	0.125	3.25	2.4	S
OP184FS	3.9	—	0.4	60	0.125	3.25	2.4	S
OP270EZ	3.2	3.6	0.6	5	0.010	5.00	2.4	D
OP270GP	3.2	3.6	0.6	15	0.050	5.00	2.4	D
OP470AY	3.2	3.8	0.4	6	0.100	6.00	2.0	Q
OP470EY	3.2	3.8	0.4	6	0.100	6.00	2.0	Q
OP470GP	3.2	3.8	0.4	25	0.400	6.00	2.0	Q
OP470GS	3.2	3.8	0.4	25	0.400	6.00	2.0	Q
OP471GP	6.5	9.0	0.4	25	0.250	6.00	8.0	Q

Precision Amplifiers

Mfr.'s Type	Vos Max. (µV)	Vos TC Max. (µV/¡C)	Noise µVp-p 0.1-10 Hz Typ.	GBW Typ. (MHz)	Slew Rate (V/µs Typ.)	Ib nA Max.	CMRR dB f=1 kHz Typ.	Single Dual Quad
OP177EZ	25	0.3	0.35	0.6	0.30	2.000	140	S
OP177FP	25	0.3	0.35	0.6	0.30	2.000	140	S
OP177GP	25	0.3	0.35	0.6	0.30	2.000	140	S
OP177GS	25	0.3	0.35	0.6	0.30	2.000	140	S
OP77EP	25	0.6	0.35	0.6	0.30	2.000	105	S
OP77EZ	25	0.3	0.35	0.6	0.30	2.000	105	S
OP77FJ	60	0.6	0.38	0.6	0.30	2.800	105	S
OP77FP	60	1.0	0.38	0.6	0.30	2.800	105	S
OP07CJ	75	1.3	0.35	0.6	0.30	±3.000	126	S
OP07CP	75	1.3	0.35	0.6	0.30	±3.000	126	S
OP07CS	75	1.3	0.35	0.6	0.30	±3.000	126	S
OP07DP	75	1.3	0.35	0.6	0.30	±3.000	126	S
OP07EJ	75	1.3	0.35	0.6	0.30	±3.000	126	S
OP07EP	75	1.3	0.35	0.6	0.30	±3.000	126	S
OP07EZ	75	1.3	0.35	0.6	0.30	±3.000	126	S
AD707JN	90	1.0	0.23	0.9	0.30	2.500	140	S
OP77GP	100	1.2	0.38	0.6	0.30	2.800	105	S
AD711KN	500	1.0	2.00	4.0	20.00	0.050	88	S
AD711JN	1000	3.0	2.00	4.0	20.00	0.050	88	S
AD711JR	1000	3.0	2.00	4.0	20.00	0.050	88	S
AD712KN	1000	10.0	2.00	4.0	20.00	0.020	88	D
AD712JN	3000	20.0	2.00	4.0	20.00	0.025	88	D
AD712JR	3000	20.0	2.00	4.0	20.00	0.025	88	D
AD708BQ	50	0.4	0.23	0.9	0.30	1.000	140	D