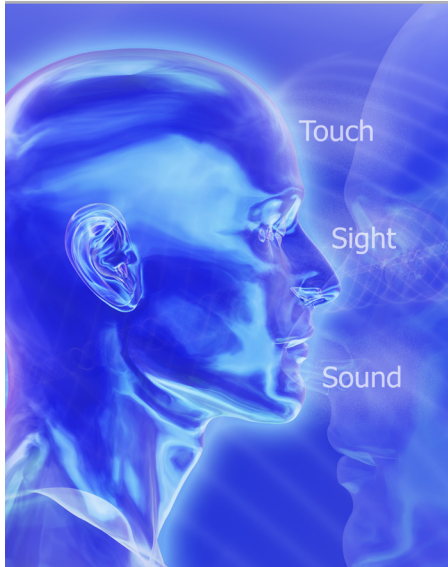


COMLINEAR[®] Amplifier Products



CADEKA's focus is leading edge analog solutions. Analog is the essence of human experience, it is at the core of our senses... sound, vision, and touch. High performance analog products enhance audio, video, and environmental sensing applications. CADEKA's product focus, amplifiers, are at the core of analog: sensing, amplifying, and conditioning the analog signals present in the systems that engineers design to interface electronics to the analog world. Our theme is "Amplify the Human Experience™". We are amplifier experts and we are absolutely passionate about being successful with our core competency. – Gary Ross, CEO.

AMPLIFY THE HUMAN EXPERIENCE™

- Amplifiers with leading performance to power ratios that enable designers to minimize power consumption without sacrificing performance.
- Design and applications support that provide engineers with fast and accurate solutions, allowing designers to minimize their time-to-market.

High Performance Amplifiers

Part Number	# of Ch	Pwr Dwn	Rail to Rail	G _{min} (V/V)	BW@ G _{min} (MHz)	BW@ G=2 (MHz)	SR (V/μs)	Settling Time (0.1%)(ns)	I _S per Ch (mA)	I _{OUT} (mA)	V _{IO} (±) (max) (mV)	I _{bn} (max) (μA)	HD2 (-dBc)	HD3 (-dBc)	e _n (nV/√Hz)	Min V _S (V)	Max V _S (V)	Packages
CLC1001	1	Yes	Out	10	284	N/A	410	11	12.5	130	1	60	81	75	0.6	4	12	SOT23-6, SOIC-8
CLC1002	1	Yes	Out	5	290	N/A	170	12	13	130	1	60	75	66	0.6	4	12	SOT23-6, SOIC-8
CLC1003	1	No	In/Out	1	55	25	12	80	2.2	80	1	2.6	125	127	3.5	2.5	12	SOT23-5, SOIC-8
CLC1004	1	Yes	No	2	750	750	1400	10	12	100	10	20	71	82	4	4.5	12	SOT23-6
CLC1005†	1	No	Out	1	260	90	145	40	4.2	55	8	8	71	78	16	2.5	5.5	SOT23-5, SOIC-8
CLC1006	1	No	No	2	500	500	1400	10	5.5	100	10	20	68	63	5	4.5	12	SOT23-5, SOIC-8
CLC1008†	1	No	Out	1	75	35	50	60	0.505	15	5	3.5	64	62	12	2.5	5.5	SOT23-5, SOIC-8
CLC1014	1	No	No	2	750	750	1400	10	12	100	10	20	71	82	4	4.5	12	SOT23-5
CLC1015†	1	Yes	Out	1	260	90	145	40	4.2	55	8	8	71	78	16	2.5	5.5	SOT23-6, SOIC-8
CLC1018†	1	Yes	Out	1	75	35	50	60	0.505	15	5	3.5	64	62	12	2.5	5.5	SOT23-6, SOIC-8
CLC1603	1	Yes	No	1	240	200	450	18	1.1	100	4	5	67	57	4	4.5	12	SOT23-6, SOIC-8
CLC1605	1	No	No	1	1500	1200	2500	13	12	120	10	40	73	85	3.7	4.5	12	SOT23-5
CLC1606	1	No	No	1	1300	1200	3300	13	7.5	120	10	45	71	71	3	4.5	12	SOT23-5, SOIC-8
CLC2000	2	No	No	1	510	250	210	20	7	200	6	20	84	88	4.5	5	13	SOIC-8
CLC2005	2	No	Out	1	260	90	145	40	4.2	55	8	8	71	78	16	2.5	5.5	SOIC-8
CLC2008	2	No	Out	1	75	35	50	60	0.505	15	5	3.5	64	62	12	2.5	5.5	MSOP-8, SOIC-8
CLC2600	2	No	No	1	300	230	1300	20	3.3	50	8	3	80	86	6.4	8	12	SOIC-8
CLC2601	2	No	No	1	550	335	1500	20	5.2	52	7.5	7	82	83	7	8	12	SOIC-8

Note: † Advance Information

High Performance Amplifiers (Continued)

Part Number	# of Ch	Pwr Dwn	Rail to Rail	G_{min} (V/V)	BW@ G_{min} (MHz)	BW@ $G=2$ (MHz)	SR (V/ μ s)	Settling Time (0.1%)(ns)	I_S per Ch (mA)	I_{OUT} (mA)	$V_{IO}(\pm)$ (max) (mV)	I_{bn} (max) (μ A)	HD2 (-dBc)	HD3 (-dBc)	e_n (nV/ \sqrt Hz)	Min V_S (V)	Max V_S (V)	Packages
CLC3004	3	Yes	No	2	750	750	1400	10	12	100	10	20	71	82	4	4.5	12	SOIC-16
CLC3600	3	No	No	1	300	230	1300	20	4.4	50	8	3	80	86	6.4	8	12	SOIC-14
CLC3601	3	No	No	1	550	335	1500	20	6.93	52	7.5	7	82	83	7	8	12	SOIC-14
CLC3603	3	Yes	No	1	240	200	450	18	1.1	100	4	5	67	57	4	4.5	12	SOIC-16
CLC3605	3	Yes	No	1	1500	1200	2500	13	12	120	10	40	73	85	3.7	4.5	12	SOIC-16
CLC4600	4	No	No	1	300	230	1300	20	3.3	50	8	3	80	86	6.4	8	12	SOIC-8

Note: † Advance Information

General Purpose Amplifiers

Part Number	# of Ch	Pwr Dwn	RRIO	GBW (MHz)	SR (V/ μ s)	I_S per Ch (mA)	I_{OUT} (mA)	$V_{IO}(\pm)$ (max) (mV)	I_{bn} (max) (μ A)	I_{OS} (max) (nA)	THD (-dB)	e_n (nV/ \sqrt Hz)	AOL (dB)	CMRR (-dB)	PSRR (-dB)	Min V_S (V)	Max V_S (V)	Packages
CLC1003	1	No	In/Out	35	12	2.2	80	1	2.6	700	123	3.5	115	95	100	2.5	12	SOT23-5, SOIC-8
CLC1005†	1	No	Out	90	145	4.2	55	8	8	800	70	16	78	87	57	2.5	5.5	SOT23-5, SOIC-8
CLC1008†	1	No	Out	33	50	0.505	15	5	3.5	350	60	12	80	92	65	2.5	5.5	SOT23-5, SOIC-8
CLC1009	1	No	Out	20	27	0.208	8.5	5	1.3	130	65	21	62	95	60	2.5	5.5	SOT23-5, SOIC-8
CLC1010	1	No	Out	4	9	0.07	4	5	0.25	100	55	29	76	97	63	2.5	5.5	SOT23-5, SOIC-8
CLC1011†	1	No	In/Out	2	9	0.16	30	8	0.45	NS	71	22	80	85	60	2.5	5.5	SC70-5, SOT23-5, SOIC-8
CLC1015†	1	Yes	Out	90	145	4.2	55	8	8	800	70	16	78	87	57	2.5	5.5	SOT23-6, SOIC-8
CLC1018†	1	Yes	Out	33	50	0.505	15	5	3.5	350	60	12	80	92	65	2.5	5.5	SOT23-6, SOIC-8
CLC1019	1	Yes	Out	20	27	0.208	8.5	5	1.3	130	65	21	62	95	60	2.5	5.5	SOT23-6, SOIC-8
CLC1050	1	No	No	0.84	0.285	0.65	40	5	0.1	30	76.5	40	100	70	100	3	36	SOT23-5
CLC2005	2	No	Out	90	145	4.2	55	8	8	800	70	16	78	87	57	2.5	5.5	SOIC-8
CLC2008	2	No	Out	33	50	0.505	15	5	3.5	350	60	12	80	92	65	2.5	5.5	MSOP-8, SOIC-8
CLC2009	2	No	Out	20	27	0.208	8.5	5	1.3	130	65	21	62	95	60	2.5	5.5	MSOP-8, SOIC-8
CLC2010	2	No	Out	4	9	0.07	4	5	0.25	100	55	29	76	97	63	2.5	5.5	MSOP-8, SOIC-8
CLC2011	2	No	In/Out	2	9	0.16	30	8	0.45	NS	71	22	80	85	60	2.5	5.5	MSOP-8, SOIC-8
CLC2050	2	No	No	0.84	0.285	0.65	40	5	0.1	30	76.5	40	100	70	100	3	36	SOIC-8
CLC2057	2	No	No	15	6	1.75	45	3	0.5	100	106	4	110	110	110	4	36	SOIC-8
CLC2058	2	No	No	5.5	2.8	1.25	35	5	0.4	100	94	10	100	95	100	4	36	SOIC-8
CLC2059	2	No	No	15	7	1.5	45	3	0.5	100	106	4	110	110	110	4	36	SOIC-8
CLC4011†	4	No	In/Out	2	9	0.16	30	8	0.45	NS	71	22	80	85	60	2.5	5.5	SOIC-14
CLC4050	4	No	No	0.84	0.285	0.65	40	5	0.1	30	76.5	40	100	70	100	3	36	SOIC-8

Notes: NS = Not Specified, † Advance Information

Precision Amplifier

Part Number	# of Ch	Pwr Dwn	Rail to Rail	G_{min} (V/V)	BW@ G_{min} (MHz)	SR (V/ μ s)	I_s per Ch (mA)	I_{OUT} (mA)	V_{IO} (mV)		V_{IO} Drift (\pm) (typ) (μ V/ $^{\circ}$ C)	I_b (max) (μ A)	Noise** (nV/ \sqrt Hz)		AOL (dB)	CMRR (-dB)	PSRR (-dB)	V_s (min) (V)	V_s (max) (V)	Pkg
									typ	max			@10	@1						
CLC2250	2	No	Both	1	4.4	2.2	0.26	65	0.005	0.05	1	1pA	17	42	110	90	90	1.8	5.5	SOIC-8

Note: ** Noise at 10kHz and 1kHz

Instrumentation Amplifiers

Part Number	# of Amps	Pwr Dwn	Rail to Rail	Gain Range (V/V)	Gain Setting Method	BW@ G_{min} (MHz)	I_s per Ch (mA)	V_{IO} (\pm) (max) (mV)	CMRR (-dB)	Nonlinearity (max) (ppm)	Min V_s (V)	Max V_s (V)	Packages	Status
CLC1204†	1	No	Out	1 to 1000	Fixed	1.8	0.375	0.05	110	15	3	12	SOIC-8	Advance
CLC1206†	1	No	Out	1 to 1000	Resistor	1.8	0.375	0.05	110	15	3	12	SOIC-8	Advance

Note: † Advance Information

General Purpose Comparators

Part Number	# of Channels	Output Type	Response Time (μ s)	V_{IO} (mV)	CMIR (V)	I_s /Channel (mA)	Min V_s (V)	Max V_s (V)	Packages
CLC2550	2	Open Collector	1.3	2	+ V_s - 1.5	0.6	2	36	SOIC-8
CLC4550	4	Open Collector	1.3	2	+ V_s - 1.5	0.9	2	36	SOIC-14

High Speed Comparators

Part Number	# of Ch	Logic Output	Adjustable Hysteresis	BW (MHz)	SR (V/ns)	Propagation Delay (ns)	Input Voltage Range + V_s (V) (+ V_s -X)	Input Voltage Range - V_s (V) (- V_s -X)	Power Dissipation (mW)	Min V_s (V)	Max V_s (V)	Packages
CLC2500†	2	ECL	No	900	10	0.65	4	-2.5	350	5	-5.2	TBD

Note: † Advance Information

Video Filter Drivers

Part Number	Input Ch	Output Ch	Power Down	Gain (dB)	-3dB Filter Cutoff (MHz)	Stopband Attenuation (dB)	DG/DP (%/ $^{\circ}$)	I_s per Ch (mA)	Input	Output	Min V_s (V)	Max V_s (V)	Packages
CLC3800	3	3	No	6	8.6	48	0.1/0.02	3.1	DC-Coupled	AC- or DC-Coupled	3	7	SOIC-8, DFN-8
CLC3804*	3	3	No	6	8.6	48	0.1/0.02	6	AC- or DC-Coupled	AC- or DC-Coupled	3	5.5	SOIC-8, DFN-8
CLC3810*	3	3	No	6	36	44	N/A	6	AC- or DC-Coupled	AC- or DC-Coupled	3	5.5	SOIC-8, DFN-8
CLC3811*	3	3	Yes	6	36	44	N/A	6	AC- or DC-Coupled	AC- or DC-Coupled	3	5.5	MSOP-10
CLC4804*	4	4	No	6	8.6	48	0.1/0.02	6	AC- or DC-Coupled	AC- or DC-Coupled	3	5.5	MSOP-10, TSSOP-14
CLC4810*	4	4	No	6	8.6 and 36	48 and 44	0.1/0.02	6	AC- or DC-Coupled	AC- or DC-Coupled	3	5.5	MSOP-10, TSSOP-14
CLC4811*	4	4	Yes	6	8.6 and 36	48 and 44	0.1/0.02	6	AC- or DC-Coupled	AC- or DC-Coupled	3	5.5	TSSOP-14
CLC4812*	4	4	Yes	6	8.6 and 36	48 and 44	0.1/0.02	6	AC- or DC-Coupled	AC- or DC-Coupled	3	5.5	TSSOP-14
CLC4814*	4	4	Yes	6	8.6	48	0.1/0.02	6	AC- or DC-Coupled	AC- or DC-Coupled	3	5.5	TSSOP-14

Note: * Preliminary

Video Amplifiers

Part Number	# of Ch	Pwr Dwn	Rail to Rail	Input Includes $-V_S$	G_{min} (V/V)	BW@ G_{min} (MHz)	BW@ $G=2$ (MHz)	0.1dB BW (MHz)	SR (V/ μ s)	I_S per Ch (mA)	I_{OUT} (mA)	DG (%)	DP (deg)	e_n (nV/ \sqrt Hz)	Cross-talk (-dB)	Min V_S (V)	Max V_S (V)	Packages
CLC1004	1	Yes	No	No	2	750	750	200	1400	12	100	0.02	0.01	4	N/A	4.5	12	SOT23-6
CLC1005†	1	No	Out	Yes	1	260	90	9.5	145	4.2	55	0.06	0.07	16	N/A	2.5	5.5	SOT23-5, SOIC-8
CLC1006	1	No	No	No	2	500	500	50	1400	5.5	100	0.02	0.05	5	N/A	4.5	12	SOT23-5, SOIC-8
CLC1014	1	No	No	No	2	750	750	200	1400	12	100	0.02	0.01	4	N/A	4.5	12	SOT23-5
CLC1015†	1	Yes	Out	Yes	1	260	90	9.5	145	4.2	55	0.06	0.07	16	N/A	2.5	5.5	SOT23-6, SOIC-8
CLC1603	1	Yes	No	No	1	240	200	30	450	1.1	100	0.01	0.03	4	N/A	4.5	12	SOT23-6, SOIC-8
CLC1605	1	No	No	No	1	1500	1200	120	2500	12	120	0.01	0.01	3.7	N/A	4.5	12	SOT23-5
CLC1606	1	No	No	No	1	1300	1200	150	3300	7.5	120	0.01	0.01	3	N/A	4.5	12	SOT23-5, SOIC-8
CLC2000	2	No	No	No	1	510	250	32	210	7	200	0.009	0.06	4.5	62	5	13	SOIC-8
CLC2005	2	No	Out	Yes	1	260	90	9.5	145	4.2	55	0.06	0.07	16	62	2.5	5.5	SOIC-8
CLC2600	2	No	No	No	1	300	230	95	1300	3.3	50	0.03	0.04	6.4	56	8	12	SOIC-8
CLC2601	2	No	No	No	1	550	335	120	1500	5.2	52	0.01	0.06	7	56	8	12	SOIC-8
CLC3004	3	Yes	No	No	2	750	750	200	1400	12	100	0.02	0.01	4	70	4.5	12	SOIC-16
CLC3600	3	No	No	No	1	300	230	95	1300	4.4	50	0.03	0.04	6.4	56	8	12	SOIC-14
CLC3601	3	No	No	No	1	550	335	120	1500	6.93	52	0.01	0.06	7	56	8	12	SOIC-14
CLC3603	3	Yes	No	No	1	240	200	30	450	1.1	100	0.01	0.03	4	56	4.5	12	SOIC-16
CLC3605	3	Yes	No	No	1	1500	1200	120	2500	12	120	0.01	0.01	3.7	60	4.5	12	SOIC-16
CLC4600	4	No	No	No	1	300	230	95	1300	3.3	50	0.03	0.04	6.4	56	8	12	SOIC-8

Notes: N/A = Not Applicable, † Advance Information

For additional information regarding our products, please visit us at: cadeka.com

CADEKA Headquarters Loveland, Colorado
T: 970.663.5452
T: 877.663.5452 (toll free)

CADEKA, the CADEKA logo design, COMLINEAR and the COMLINEAR logo design are trademarks or registered trademarks of CADEKA Microcircuits LLC. All other brand and product names may be trademarks of their respective companies.

CADEKA reserves the right to make changes to any products and services herein at any time without notice. CADEKA does not assume any responsibility or liability arising out of the application or use of any product or service described herein, except as expressly agreed to in writing by CADEKA; nor does the purchase, lease, or use of a product or service from CADEKA convey a license under any patent rights, copyrights, trademark rights, or any other of the intellectual property rights of CADEKA or of third parties.

©2007-2010 CADEKA Microcircuits LLC. All rights reserved.

