


Short Form Catalog v4.2

PowerAmp Design

Simple Power Op Amp Solutions

www.PowerAmpDesign.net

PowerAmp Design specializes in high power operational amplifiers for industrial applications. With a new concept for component amplifiers, these hybrid circuit designs feature surface mount component construction on an insulated metal substrate. Integrated heat sink and fan provide optimum cooling. Our new approach decreases weight and system complexity while increasing power density.





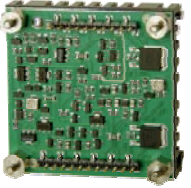













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Power Operational Amplifiers

Model	V _{RANGE} (V) V _{TOTAL} (V)	I _C (A)	I _{PK} (A)	P _{OUT} (W)	P _{DISS} (W)	P _{BW} V _{P-P} [@kHz]	SR V/μS	Features	Accessory Modules	Evaluation Kit*
 PAD20	±15 - ±75 30 - 150	5	7	80	40	130 [10]	5	<ul style="list-style-type: none"> • Temperature reporting • Over-temp shutdown • 4-wire current limit • 40mm square footprint 	PAD125 PAD131	 EVAL20
 PAD38	±15 - ±100 30 - 200	10	25	250	125	180 [33]	10	<ul style="list-style-type: none"> • External compensation • Programmable current limit 	NA	NA
 PAD39	±15 - ±50 30 - 100	10	25	200	125	80 [80]	10	<ul style="list-style-type: none"> • External compensation • Programmable current limit 	NA	NA
 PAD112	±15 - ±75 30 - 150	5	7	100	50	130 [30]	14	<ul style="list-style-type: none"> • Temperature reporting • Over-temp shutdown • 4-wire current limit 	PAD125 PAD131	 EVAL112


Model	V _{RANGE} (V) V _{TOTAL} (V)	I _C (A)	I _{PK} (A)	P _{OUT} (W)	P _{DISS} (W)	P _{BW} V _{P-P} [@kHz]	SR V/μS	Features	Accessory Modules	Evaluation Kit*
 PAD113	±15 - ±250 30 - 500	1.5	3	96	29	480 [15]	40	<ul style="list-style-type: none"> • Temperature reporting • Over-temp shutdown • 4-wire current limit 	PAD125 PAD131	 EVAL112
 PAD115	±10 - ±150 20 - 300	20	30	400	165	280 [7]	8	<ul style="list-style-type: none"> • Temperature reporting • Over-temp shutdown 	PAD125 PAD131	 EVAL118
 PAD117A	±5 - ±50 10 - 100	15	20	250	100	90 [23]	8	<ul style="list-style-type: none"> • RRIO (rail to rail input/output) • Temperature reporting • Over-temp shutdown • 4-wire current limit 	PAD125 PAD131	 EVAL117
 PAD118	±10 - ±50 20 - 100	30	40	400	165	90 [20]	8	<ul style="list-style-type: none"> • Temperature reporting • Over-temp shutdown 	PAD125 PAD131	 EVAL118
 PAD119	±10 - ±100 20 - 200	20	30	400	165	90 [20]	8	<ul style="list-style-type: none"> • Temperature reporting • Over-temp shutdown 	PAD125 PAD131	 EVAL118




Model	V _{RANGE} (V) V _{TOTAL} (V)	I _C (A)	I _{PK} (A)	P _{OUT} (W)	P _{DISS} (W)	P _{BW} V _{P-P} [kHz]	SR V/μS	Features	Accessory Modules	Evaluation Kit*
 PAD126	±20 - ±250 40 - 500	10	12	450	150	480 [25]	50	<ul style="list-style-type: none"> • Temperature reporting • Over-temp shutdown • 4-wire current limit 	PAD125 PAD131	 EVAL126
 PAD127	±5 - ±50 10 - 100	30	40	450	225	90 [10]	8	<ul style="list-style-type: none"> • RRIO (rail to rail input/output) • Temperature reporting • Over-temp shutdown • 4-wire current limit 	PAD125 PAD131	 EVAL127
 PAD128	±10 - ±50 10 - 100	20	30	400	140	90 [20]	16	<ul style="list-style-type: none"> • RRIO w/PAD130 • Temperature reporting • Over-temp shutdown • 4-wire current limit • Low distortion 	PAD125 PAD130 PAD131	 EVAL129
 PAD129	±10 - ±100 20 - 200	15	20	400	140	90 [20]	37	<ul style="list-style-type: none"> • RRIO w/PAD132 • Temperature reporting • Over-temp shutdown • 4-wire current limit • High power bandwidth 	PAD125 PAD131 PAD132	 EVAL129
 PAD135	±15 - ±100 30 - 200	5	10	80	40	180 [350]	200	<ul style="list-style-type: none"> • Low cost • Small size 40mm square • High voltage- 200 volts • 350kHz power bandwidth • 200V/μS slew rate • 40mm square footprint 	NA	 EVAL135

Model	V _{RANGE} (V) V _{TOTAL} (V)	I _C (A)	I _{PK} (A)	P _{OUT} (W)	P _{DISS} (W)	P _{BW} V _{P-P} [kHz]	SR V/μS	Features	Accessory Modules	Evaluation Kit*
 PAD137	±5 - ±50 10 - 100	20	30	400	140	90 [23]	8	<ul style="list-style-type: none"> • RRIO (rail to rail input/output) • Temperature reporting • Over-temp shutdown • 4-wire current limit 	PAD125 PAD131	 EVAL137
 PAD183	±15 - ±175 30 - 350	1.5	2.0	70	35	330 [100]	100	<ul style="list-style-type: none"> • Low cost • Small size 40mm square • High voltage- 350 volts • 100kHz power bandwidth • 100V/μS slew rate • 40mm square footprint 	NA	 EVAL183
 PAD541	±10 - ±50 20 - 100	5	7.0	100	50	80 [57]	14	<ul style="list-style-type: none"> • Low cost SIP design • 0.63" height • High voltage- 100 volts • External compensation • Programmable current limit 	NA	NA

Accessory modules provide additional optional features for the power op amp models.

Accessory Modules

Model	Function	V _{RANGE} (V) V _{TOTAL} (V)	OUTPUT	Features	Compatible Amplifiers*
 PAD125	Current Limit	±8 - ±250 16 - 500	5V Logic Signals	<ul style="list-style-type: none"> • Programmable functions • Precision 150mV sense voltage • Temp stable sense voltage • Ground referenced outputs 	All except PAD135 & PAD183

Model	Function	V _{RANGE} (V) V _{TOTAL} (V)	OUTPUT	Features	Compatible Amplifiers*
 PAD130	Dual Boost Power Supply	±8 - ±50 16 - 100	±Vs±9V	<ul style="list-style-type: none"> Converts PAD128 to RRIO amp Makes other amp models rail to rail at inputs 	PAD128
 PAD132	Dual Boost Power Supply	±8 - ±150 16 - 300	±Vs±9V	<ul style="list-style-type: none"> Converts PAD129 to RRIO amp Makes other amp models rail to rail at inputs 	PAD129
 PAD131	Fan Controller	12-15	5-15V varies w/temp	<ul style="list-style-type: none"> Increases fan life Reduces audible fan noise 	All amplifier models except PAD135 & PAD183

Notes:

*Amplifiers and accessory modules are purchased separately.

¹ADVANCE INFORMATION: Product is in development. The specifications shown are the design goals and subject to change.

²PRELIMINARY INFORMATION: Product is entering the production phase. The specifications shown are current but subject to change.

I_C: Continuous output current; I_{PK}: Peak output current; P_{OUT}: Power output capability; P_{DISS}: Power dissipation capability

P_{BW}: Power bandwidth; SR: Slew rate