

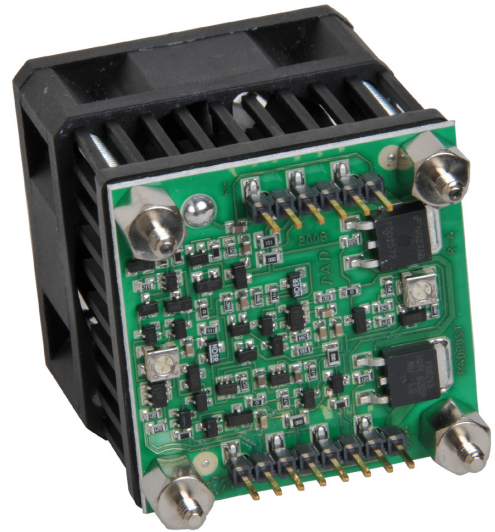
## ±5V – ±1025V, 10W – 450W Power Operational Amplifier Modules





### FEATURES

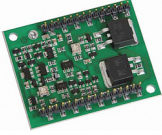


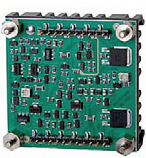
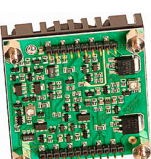


- Up to ±1025V / 2050V
- Up to 30A / 40A<sub>p</sub>
- Highest Power Density
- Up to 450W Output Power
- High Speed up to 350kHz
- External Compensation
- PCB Mountable
- Integrated Cooling Fans
- Programmable Current Limit
- Over Temperature Shutdown
- Temperature Monitor
- Evaluation Kits Available








### APPLICATIONS


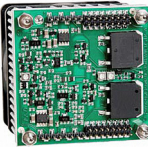





- Piezo Driver
- Industrial Ink Jet Head Driver
- Magnetic deflection
- Semiconductor Testing
- Ultrasound Transducer Driver









MODEL	SUPPLY VOLTAGE	OUTPUT CURRENT OUTPUT POWER	MAX. POWER DISSIPATION	POWER BANDW. SLEW RATE	DIMENSIONS L x W x H FEATURES
<b>PAD01</b> 	±15V - ±50V 30V – 100V	5A / 7A <sub>p</sub>  50W	30W	100kHz @ 90V <sub>PP</sub>  35V/μs	30.0 x 30.0 x 37.5mm <sup>3</sup>  External compensation, programmable current limit
<b>PAD04</b> 	±15V - ±100V 30V – 200V	5A / 7A <sub>p</sub>  60W	30W	350kHz @ 180V <sub>PP</sub>  200V/μs	30.0 x 30.0 x 37.5mm <sup>3</sup>  External compensation
<b>PAD20</b> 	±15V - ±75V 30V – 150V	5A / 7A <sub>p</sub>  80W	40W	10kHz @ 130V <sub>PP</sub>  5V/μs	40.0 x 40.0 x 53.2mm <sup>3</sup>  Temperature monitor, over-temp shutdown, 4-wire current limit
<b>PAD38</b> 	±15V - ±100V 30V – 200V	10A / 25A <sub>p</sub>  250W	125W	33kHz @ 180V <sub>PP</sub>  10V/μs	52.3 x 41.5 x 11.4mm <sup>3</sup>  External compensation, programmable current limit

MODEL	SUPPLY VOLTAGE	OUTPUT CURRENT OUTPUT POWER	MAX. POWER DISSIPATION	POWER BANDW. SLEW RATE	DIMENSIONS L x W x H FEATURES
<b>PAD39</b> 	±15V - ±50V 30V - 100V	10A / 25A <sub>P</sub>  200W	125W	80kHz @ 80V <sub>PP</sub> 10V/μs	52.3 x 41.5 x 11.4mm <sup>3</sup>  External compensation, programmable current limit
<b>PAD108</b> 	±15V - ±100V 30V - 200V	10A / 12A <sub>P</sub>  200W	100W	300kHz @ 180V <sub>PP</sub> 170V/μs	63.3 x 41.4 x 11.4mm <sup>3</sup>  External compensation, programmable current limit
<b>PAD111</b> 	±15V - ±50V 30V - 100V	15A / 50A <sub>P</sub>  250W	170W	500kHz @ 90V <sub>PP</sub> 130V/μs	63.3 x 41.4 x 11.4mm <sup>3</sup>  External compensation, programmable current limit
<b>PAD112</b> 	±15V - ±75V 30V - 150V	5A / 7A <sub>P</sub>  100W	50W	30kHz @ 130V <sub>PP</sub> 14V/μs	49.8 x 49.8 x 41.9mm <sup>3</sup>  Temperature monitor, over-temp shutdown, 4-wire current limit
<b>PAD113</b> 	±15V - ±250V 30V - 500V	1.5A / 3A <sub>P</sub>  96W	29W	15kHz @ 480V <sub>PP</sub> 40V/μs	49.8 x 49.8 x 31.9mm <sup>3</sup>  Temperature monitor, over-temp shutdown, 4-wire current limit
<b>PAD115A</b> 	±10V - ±150V 20V - 300V	20A / 30A <sub>P</sub>  400W	165W	7kHz @ 280V <sub>PP</sub> 8V/μs	60.0 x 60.0 x 67.3mm <sup>3</sup>  Temperature monitor, over-temp shutdown
<b>PAD117A</b> 	±5V - ±50V 10V - 100V	15A / 20A <sub>P</sub>  250W	100W	23kHz @ 90V <sub>PP</sub> 8V/μs	60.0 x 60.0 x 58.3mm <sup>3</sup>  RRIO, temperature monitor, over-temp shutdown, 4-wire current limit

MODEL	SUPPLY VOLTAGE	OUTPUT CURRENT OUTPUT POWER	MAX. POWER DISSIPATION	POWER BANDW. SLEW RATE	DIMENSIONS L x W x H FEATURES
<b>PAD118</b> 	±10V - ±50V 20V - 100V	30A / 40A <sub>P</sub> 400W	165W	20kHz @ 90V <sub>PP</sub> 8V/μs	60.0 x 60.0 x 67.3mm <sup>3</sup> Temperature monitor, over-temp shutdown
<b>PAD119A</b> 	±10V - ±100V 20V - 200V	20A / 30A <sub>P</sub> 400W	165W	20kHz @ 90V <sub>PP</sub> 8V/μs	60.0 x 60.0 x 67.3mm <sup>3</sup> Temperature monitor, over-temp shutdown
<b>PAD126</b> 	±20V - ±250V 40V - 500V	10A / 12A <sub>P</sub> 450W	150W	25kHz @ 480V <sub>PP</sub> 50V/μs	80.0 x 80.0 x 63.9mm <sup>3</sup> Temperature monitor, over-temp shutdown, 4-wire current limit
<b>PAD127</b> <b>OBSOLETE</b> replaced by PAD157 	±5V - ±50V 10V - 100V	30A / 40A <sub>P</sub> 450W	225W	10kHz @ 90V <sub>PP</sub> 8V/μs	80.0 x 80.0 x 63.9mm <sup>3</sup> RRIO, temperature monitor, over-temp shutdown, 4-wire current limit
<b>PAD128</b> 	±10V - ±50V 20V - 100V	20A / 30A <sub>P</sub> 400W	140W	20kHz @ 90V <sub>PP</sub> 16V/μs	60.0 x 60.0 x 67.3mm <sup>3</sup> RRIO, temperature monitor, over-temp shutdown, 4-wire C/L, low distortion
<b>PAD129</b> 	±10V - ±100V 20V - 200V	15A / 20A <sub>P</sub> 400W	140W	20kHz @ 90V <sub>PP</sub> 37V/μs	60.0 x 60.0 x 67.3mm <sup>3</sup> RRIO, temperature monitor, over-temp shutdown, 4-wire C/L, high power bandwidth
<b>PAD135</b> 	±15V - ±100V 30V - 200V	5A / 10A <sub>P</sub> 80W	40W	350kHz @ 180V <sub>PP</sub> 200V/μs	40.0 x 40.0 x 53.2mm <sup>3</sup> Low cost, high power bandwidth, 200V/μs slew rate

MODEL	SUPPLY VOLTAGE	OUTPUT CURRENT OUTPUT POWER	MAX. POWER DISSIPATION	POWER BANDW. SLEW RATE	DIMENSIONS L x W x H FEATURES
<b>PAD136</b> 	±15V - ±100V 30V - 200V	7A / 10A <sub>P</sub>  150W	100W	350kHz @ 180V <sub>PP</sub>  200V/μs	45.6 x 39.5 x 11.4mm <sup>3</sup>  Low cost, high power bandwidth, 200V/μs slew rate
<b>PAD137</b> 	±5V - ±50V 10V - 100V	20A / 30A <sub>P</sub>  400W	140W	23kHz @ 90V <sub>PP</sub>  8V/μs	60.0 x 60.0 x 67.3mm <sup>3</sup>  RRIO, temperature monitor, over-temp shutdown, 4-wire current limit
<b>PAD138</b> 	±15V - ±100V 30V - 200V	10A / 12A <sub>P</sub>  240W	75W	30kHz @ 180V <sub>PP</sub>  30V/μs	40.0 x 40.0 x 53.2mm <sup>3</sup>  Low cost, small size, high voltage
<b>PAD141</b> 	±6V - ±50V 12V - 100V	10A / 15A <sub>P</sub>  240W	75W	28kHz @ 90V <sub>PP</sub>  7V/μs	40.0 x 40.0 x 53.2mm <sup>3</sup>  Low cost, small size, single supply operation
<b>PAD149</b> 	±15V - ±100V 30V - 200V	10A / 12A <sub>P</sub>  240W	125W	150kHz @ 180V <sub>PP</sub>  100V/μs	Low cost, temperature monitor, short circuit protection, external shutdown
<b>PAD150</b> 	±15V - ±50V 30V - 100V	10A / 20A <sub>P</sub>  200W	125W	500kHz @ 90V <sub>PP</sub>  200V/μs	45.6 x 39.5 x 11.4mm <sup>3</sup>  Low cost, high power bandwidth, 200V/μs slew rate small size
<b>PAD157</b> 	±5V - ±50V 10V - 100V	30A / 40A <sub>P</sub>  450W	225W	10kHz @ 90V <sub>PP</sub>  8V/μs	80.0 x 80.0 x 63.9mm <sup>3</sup>  RRIO, temperature monitor, over-temp shutdown, 4-wire current limit, no balancing resistors required

MODEL	SUPPLY VOLTAGE	OUTPUT CURRENT OUTPUT POWER	MAX. POWER DISSIPATION	POWER BANDW. SLEW RATE	DIMENSIONS L x W x H FEATURES
<b>PAD183</b> 	±15V - ±175V 30V - 350V	1.5A / 2.0A <sub>P</sub>  70W	35W	100kHz @ 330V <sub>PP</sub>  100V/μs	40.0 x 40.0 x 53.2mm <sup>3</sup>  Low cost, small size
<b>PAD188</b> 	±25V - ±262.5V 50V - 525V	0.1A / 0.2A <sub>P</sub>  10W	5W	2kHz @ 960V <sub>PP</sub>  3V/μs	31.6 x 31.6 x 14.9mm <sup>3</sup>  High voltage, external compensation, programmable C/L, conformal coated, 1mA quiescent current
<b>PAD189A</b> 	±50V - ±525V 100V - 1050V	1.5A / 1.5A <sub>P</sub>  180W	60W	10kHz @ 960V <sub>PP</sub>  30V/μs	60.0 x 60.0 x 48.3mm <sup>3</sup>  High voltage, external compensation, 4-wire current limit, conformal coated
<b>PAD195</b> 	±50V - ±520V 100V - 1040V	0.1A / 0.2A <sub>P</sub>  40W	20W	1kHz @ 1000V <sub>PP</sub>  20V/μs	40.0 x 40.0 x 28.1mm <sup>3</sup>  Very high voltage: 1000V <sub>PP</sub> external compensation, programmable C/L, conformal coated, 1mA quiescent current
<b>PAD196</b> 	±50V - ±1025V 100V - 2050V	0.05A / 0.1A <sub>P</sub>  24W	12W	0.5kHz @ 2000V <sub>PP</sub>  5V/μs	49.8 x 49.8 x 26.3mm <sup>3</sup>  Very high voltage: 2000V <sub>PP</sub> external compensation, programmable C/L, conformal coated, 1mA quiescent current
<b>PAD541</b> 	±10V - ±50V 20V - 100V	5A / 7A <sub>P</sub>  100W	50W	57kHz @ 80V <sub>PP</sub>  14V/μs	50.8 x 3.9 x 16.0mm <sup>3</sup>  Low cost SIP design, 16mm height, external compensation, programmable C/L