



AM Power Systems

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CYCLONE Series

ULTRA LOW Power DC -DC Converter w/Variable Input (3.0-5V) w/Dual HI-Voltage Outputs (Preliminary Spec - Oct'07)

AM50v150 RCM - Dual Vouts w/Vout1 adjust by separate Pin #2 (to -625V) and Vout2 fixed (+1.5KV) AM50v150 CM - Dual Vouts w/Vout1 adjust by variable Vin

The **AM50v150CM** is a multiple output, high voltage DC-DC converter with the input voltage (V_{in}) range being 3.0 to 5.0 volts and the two output voltages (V_{out}) being -500V and +1.5KV. Applications include radiation detection, industrial control verification, medical imaging or Homeland Security detection equipment. With the latest in PWM integrated circuit (IC) design, these high efficiency parts have an output ripple less than 1%.

SPECIFICATIONS:

Internal regulation with solid-state PWM design with the capability of output voltage setting by an external control pin (#2) feature

Input voltage: $V_{in} \geq +3.0V \leq +5V$

Multiple Output voltages:

Vout1 (variable) -500V (negative)

Vout2 (isolated and fixed) +1500V (positive)

w/ $\pm 10\%$ Vout tolerance at nominal input voltage

Output voltage (V_{out1}) adjustment range: $\pm 25\%$ min. w/ V_{in} adjustment or separate control pin (#2)

Maximum load/output current: 100uA for -500V and 2uA for 1.5KV

Maximum input current: 32mA at 5V input voltage and max load

Maximum power consumption: 0.15W at max load of 10 Mohm resistance.

Maximum "no load" power consumption: 0.03W.

Vout1 (-500Vout#1) stability over temperature: +/- 3%

Capability of auto thermal and over-voltage shutdown included

Min Efficiency: 40% on maximum load.

Output voltage ripple: $\pm 1\%$ max. V out

Regulation: referenced to -500V output (V out#1)

OTHER CONSIDERATIONS:

Max Size: (37x37x13)mm ± 2 mm.

EMI shielding: optional w/metal can/cover

Environmental Temperature range: -10C +50C

PCB mount: Thru-hole (Suffix - T)

PRICE & DELIVERY:

Delivery from stock for small quantities (<10 units)

Pricing at the 2-4 pc. level is \$289.00 each,

5-9 unit pricing is \$259.00 each.

10-19 units - \$229.50 each.

20-29 units - \$199 each.

Higher Volumes - contact factory

NRE FEES FOR CUSTOM DESIGN (customer application specific Vout req'ts)

Up-front fees - \$3,750.00 payable 2/3 at time of order placement, balance on delivery of samples

First delivery of 2-9 units in 3-4 weeks after P.O. placement

Delivery up to 10-25 units in 2-3 weeks after first delivery.

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