

SCE Model 4001 Power Supply

This militarized, miniature high voltage supply contains a fixed duty cycle push-pull MOSFET converter operating at 250Khz. Output of the converter transformer is multiplied by 5 to 14KV. Tracking focus is derived from the first stage of the multiplier chain and series regulated down to 5% of the second anode output. Main control feedback is taken from the HV output via a low tempco voltage divider, which is compared to a precision 10,000V reference by a low drift op amp. Current overload is sensed by monitoring average driver source currents, which, in conjunction with another amplifier, over-rides the main feedback loop. A pi filter in the positive input lead reduces input current ripple to a few milliamps.

SPECIFICATIONS

Electrical

Input:

- Voltage +28VDC
- Current +5amp

Output:

- Voltage 14KV
- Current 300 μ A trimpot adjustable $\pm 10\%$
- Regulation $\pm .005\%$ line, $\pm .05\%$ load

Protection Circuits

- Overcurrent Supply is protected against overcurrent and CRT arc-over

Environmental

- Operating Temperature -55°C to +71°C
- Operating Altitude sea level to 30,000 feet

Construction: Sealed aluminum case, machined from solid billet

- Size 4.9" x 3.1" x 2"
- Weight 2.2lbs., max.
- Marking Epoxy Ink
- Potting Silicone