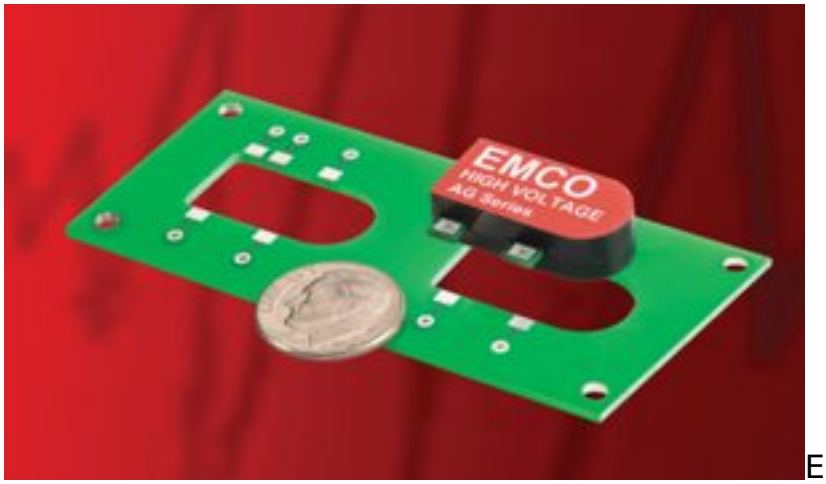
Low Profile, Surface Mount High Voltage Power Supply



EMCO High Voltage Corporation, a leading designer and manufacturer of high voltage power supplies for over four decades, today announced the latest development in its line of ultra-miniature high voltage converters. The AG Series utilizes a novel surface mount design that recesses the power supply into a trench in the host PWB, resulting in a component height profile one eighth of an inch (0.128 in, 7.11mm). The AG's extremely low profile, coupled with its unique ability to sit inside a circuit board, rather than on top, provides a versatile space saving solution to OEM systems designers in applications where every millimeter counts.

"As scientific equipment and instrumentation migrate from the laboratory bench top into hand-held devices used in the field, miniaturized solutions such as this become enabling factors that drive and accelerate this trend.” Mike Doherty, President and CEO of EMCO commented, "Our products provide an opportunity to produce more elegant and efficient designs by offering a significant reduction in size,weight and cost, sometimes by an order of magnitude or more.”

This unique package can be mounted using the surface mount tabs or via swaged PC pins for through-hole applications.

Sources of ripple, EMI/RFI and conducted ripple current noise become more of an issue as electronics become smaller, because noise sources get closer to sensitive circuits. EMCO's converter mitigates this problem by utilizing a quasi-sinewave oscillator, fully shielded transformer, proven layout techniques and good filtering. EMCO's proprietary topology provides clean, reliable, robust and efficient DC to high voltage DC conversion. With a turn-on voltage of less than 0.7 volts, the AG Series accommodates a wide operating voltage range. A separate high impedance control pin facilitates the use of an external error amplifier in closed loop system, as well as providing a simple on/off control.

Excellent high voltage isolation techniques, including use of a proprietary high

performance encapsulation formula and process, result in very low input to output leakage current (less than 100 nA) and very low coupling capacitance (<250pF). The thermally conductive 94V0 encapsulant and an embedded aluminum heatsink allow these modules to perform well in harsh environments. No minimum load or external components are required.

The new AG Series of component-sized DC to high voltage DC converters is available in 1 and 1.5 watt versions. Standard input voltages are 0 to 5, 12 or 24 VDC. Alternate input voltages, output voltages or power levels are available via special order.

EMCO's “Flex Chain” manufacturing infrastructure produces cost effective products, whether a customer requires one unit or millions of units.

EMCO High Voltage Corporation
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[1] http://www.emcohighvoltage.com