

## **EDR, Inc/VSHolding announces third generation Ultra-Fast I-V Biases Generators (UFBG) designed for real-time MRI, Magnetic Resonance Spectroscopy (MRS) and Ultrashort TE (UTE) Imaging**

Louisville, KY, February 26, 2015: Electronic Design & Research has added one more family of devices to its product line featuring UFBG-602/A/6kV [P/N EDR88111/A/H6] intended for delivering biases power to PIN diode for removing ripples in receiving RF Coil during advanced MRI/MRS/UTE data acquisitions. The I-V Biases Generators are successfully used by researchers including GEHC, Synaptive Medical Inc. and others.

The UFBG-602/XXX utilizes high-speed SPDT&N and SPST switches and two power sources for delivering biases power in an extremely fast fashion. One, an adjustable voltage source, can be set at any voltage from +500 VDC to +1000 VDC; the other, a constant current source that delivers a -5 VDC /200mA. The SPDT&N (T4F152A05/5) switches biases in 150 nS from one to the other.

The SPST (D3F152A1/5) switch is for discharging an excess of energy accumulated in an output capacitance that occurred while the +V was applied. Fast discharging of the +V residual helps shorten a delay of delivering the -V onto a load (PIN diode). That allows removing ripples in the receiver signal RF coil within a microsecond, thus enabling high-speed data acquisitions. For comparison, that time could be quite long (from 50 $\mu$ s to 200 $\mu$ s) with “600 and 601” models using external power sources due to lengthy hook up cables. UFBG-602/XXX devices are 100% solid-state with built-in electronic protections that ensure long, trouble and maintenance free operation even if a load fails on multiple occasions.

Multiple attachments are available for all models. The cost of a device highly depends on required options, such as a maximum voltage and current, types of warnings, remote control, disable output for RF amplifier, etc. A volume discount is available.

UFBC-600/XXX/5/3kV costs \$5,046. It's rated at 3 kV isolation and required external bias power sources.

UFBC-601/XXX/5/6kV costs \$8,478.95. It is rated at 6kV isolation and requiring external bias power sources. (NOTE: UL certified)

UFBG-602/XXX/6kV costs \$14,823.50. It is a stand-alone device, rated at 6kV isolation, included all bias power sources. (NOTE: UL certification will be obtained at the end of 2015).

For more information visit <http://www.vsholding.com/datasheets/UFBG.pdf> or email to [info@vsholding.com](mailto:info@vsholding.com)

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Electronic Design & Research Inc has been the world's innovative leader in manufacturing solid-state switching products for nearly 20 years. The company's comprehensive product line includes Solid-State Modules such as SPST, SPDT, DPDT and DPST Relays/Switches, H-Drivers, Super-High Power Switching Systems, Security Modules, Fog-Bulb relays, Super-Fast High-Voltage Switches, and many more, meeting a wide range of requirements for industrial, commercial, military and aerospace uses worldwide. We also manufacture a super-high resolution EKG (H-EKG), comb filters, super-low noise preamplifiers, precision frequency synthesizers,  $\Pi$ -shape digital filters, universal analog blocks, CAA DC/DC converters, 3ph pseudo-resonance type AC drivers, etc.