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## **Sofics® ESDdoctor® Debugging Enables Maximum Stress Voltage with No Failure on Anvo-Systems Non-Volatile SRAM Design**

**Minimizes Mask Changes, Achieves Results in Less than Two Weeks**

GISTEL, BELGIUM (November 20, 2012) – ESDdoctor®, the consulting and debugging test service from Sofics® bvba ([www.sofics.com](http://www.sofics.com)), has helped Anvo-Systems Dresden ([www.anvo-systems-dresden.com](http://www.anvo-systems-dresden.com)) optimize the electrostatic discharge and electrical overstress (ESD/EOS) protection on a new non-volatile SRAM (nvSRAM) product to withstand very high stress voltages with no failures, according to officials of both companies.

Sofics is a leading provider of ESD solutions for ICs. Anvo-Systems designs nvSRAMs for use as stand-alone memories or as IP blocks in systems-on-chips.

The nvSRAM device needed ESD protection levels greater than 4kV HBM with latch-up protection to 250mA at 85°C. Other parameters called for ESD protection to >500V CDM, with >750V protection on corner pins. Anvo-Systems Dresden contracted for ESDdoctor consultation to meet these challenging specifications.

“Our goal was to boost the robustness of our ESD/EOS protection without making extensive changes to our design masks, so we decided to engage experts in the field,” said Dr. Steffen Buschbeck, Anvo-Systems project manager. “Under its ESDdoctor program Sofics optimized our product in less than two weeks.

“Everything worked perfectly. In tests of the chips we found no failure far beyond the required maximum stress voltage, which means there’s headroom even above that.”

According to Koen Verhaege, CEO of Sofics, his company’s ESDdoctor consulting practice is made up of two components: testing and diagnosis of a device’s ESD performance, which is available as a standalone service; and design of full-chip ESD protection based on those tests.

“ESDdoctor gives clients access to our company’s full range of expertise to identify, diagnose, and solve any ESD/EOS problem quickly and definitively,” said Verhaege. “If they opt

to have us design ESD protection for their products, we draw on publicly available solutions to hold down costs. We use proprietary Sofics technology only when necessary.

“All of our solutions are in full conformance with foundry-supplied design rules, and we strive to minimize mask changes to further reduce client costs.”

Sofics ESD/EOS solutions are proven in over 1,500 commercial ICs, in both standard and high-voltage devices. Sofics customers include chip makers as well as fabless IC companies.

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#### **About Sofics**

Sofics ([www.sofics.com](http://www.sofics.com)) focuses on product development, licensing, engineering tools and design services for on-chip device- and system-level protection and reliability. Sofics is an independent IP provider, formerly known as Sarnoff Europe.

#### **About Anvo-Systems**

Anvo-Systems Dresden is a fabless semiconductor company and IP provider specialized in highly reliable, monolithic non-volatile data storage system solutions in industrial and communication environments. Anvo-Systems Dresden builds standard non-volatile memory products based on its own technology development and provides intellectual property to customers. On January 13, 2009, Anvo-Systems Dresden was founded as a privately held company (GmbH) with the vision of setting new performance standards to the nvSRAM world. For more information, please, visit [www.anvo-systems-dresden.com](http://www.anvo-systems-dresden.com).