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Arquimea Ingeniería Selects ESDdoctor® Debugging from Sofics® to Test Device Fitness for Space Use, Design ESD Protection

Sofics to Check ESD Protection, Radiation Hardness of I/O; Working with Proprietary Foundry Process

GISTEL, BELGIUM (*December 18, 2012*) – Under its ESDdoctor® consulting and debugging test service, Sofics® bvba (www.sofics.com), a leading provider of ESD solutions for ICs, will design the ESD protection for a dual LVDS transceiver from Arquimea Ingeniería (Madrid, Spain), a fabless design house focused on rad-hard analog and mixed signal microelectronics for spaceflight and radiation environment applications, to ensure that the device is radiation hard and meets specifications for electrostatic discharge (ESD) protection in space applications.

These applications call for ESD protection up to 8kV HBM in addition to radiation hardness, extended common mode (-5V to +6V) operation and cold sparing capabilities. The specific circuit includes a heterojunction bipolar transistor (HBT). Since the Arquimea device is manufactured in a proprietary SiGe BiCMOS technology based on the SGB25RH process from IHP, test structures and results developed for standard applications and specifications will also need to be reviewed to determine whether they are adequate to the task.

“You can’t afford failures in outer space, so we have to be sure that our devices will stand up to the rigors of spaceflight,” said Daniel González, leader of the microelectronics group of Arquimea. “We chose Sofics because its ESDdoctor program gives us access to the expertise behind the most advanced technology in ESD diagnostics and solutions, and because they routinely work in multiple processes.

“ESDdoctor also makes economic sense, as it offers both standard and customized testing services in one place, without having to assemble them ourselves. This reduces risk and saves time and money.”

According to Koen Verhaege, CEO of Sofics, ESDdoctor gives clients access to the company’s full range of expertise to identify, diagnose, and solve any ESD/EOS problem

quickly and definitively. Clients can also choose to have Sofics design a solution based on this analysis.

“Because we have designed ESD solutions for chips across many different foundries and processes, in both standard and high-voltage technologies, we bring a unique skill set to this challenge from Arquimea,” said Verhaege. “We’re used to working in different processes, so we can quickly analyze how an existing ESD design will perform in another process node such as their proprietary SiGe BiCMOS.

“This helps us lower costs and shorten time to market. Having extensive test facilities also helps reduce the time it takes to prove a design, a test structure, or a test. We can usually do the complete analysis in house, without waiting for an outside supplier.”

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) 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 Arquimea

Arquimea Ingeniería S.L.U (www.arquimea.com) is an engineering company specializing in the design and development of rad-hard mixed signal ASICs, mechanical actuators and customized sensors, based on proprietary and exclusive technology for sectors that demand high quality, reliability and innovation, including aerospace and defense.. Based on our know-how in radiation mitigation by design, and an extensive network of trustworthy partners, ARQUIMEA is able to manage the complete procurement flow, from specification and design to chip manufacturing and qualification in the frame of a spaceflight project.