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FOR IMMEDIATE RELEASE

Ridgetop Group Offers Breakthrough NBTI Solution Addressing Increasing IC Reliability Concerns

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Ridgetop Group, Inc. announced that it has designed and patented a solution for measuring IC performance degradation caused by Negative Bias Temperature Instability (NBTI) in deep subnanometer semiconductor processes. NBTI problems became a focal point of discussion during the March 2010 DATE (Design, Automation, and Test in Europe) conference in Germany.

NBTI, an effect that causes a gradual increase in transistor threshold voltage, manifests as slower transistor switching speeds and decreased circuit performance. Presentations at the DATE conference on the topic of detrimental NBTI effects showed the increasing impact of this phenomenon to significantly reduce life cycles on small-geometry circuits by as much as 50 percent.

Ridgetop's silicon-verified NBTI Prognostic Cell intellectual property (IP) block, and similar blocks for Time-Dependent Dielectric Breakdown (TDDB) and Hot Carrier Injection (HCI), when inserted into a host circuit, not only monitor the state of health of the host circuit but signal an early warning of the onset of declining circuit performance. The IP is available in a number of process nodes and can be configured for most processes.

Ridgetop Group Marketing Director Phil Davies notes, "With the rapid deployment of smaller geometry processes, previous second- and third-order circuit physical phenomena have begun to have a direct impact on circuit life cycle performance, so an in-situ circuit health monitor for these effects is crucial."

"The NBTI Prognostic Cell is the newest member of Ridgetop's Sentinel Silicon™ library, and joins other solutions that we offer to designers of critical systems, including SJ BIST™ (for BGA intermittencies), and many others," said Ridgetop Group CEO Doug Goodman.

About Ridgetop Group

Ridgetop Group, Inc. is the world leader in providing advanced electronic prognostic and diagnostic solutions, semiconductor IP blocks and test structures, and unique built-in self-test (BIST) solutions for critical applications. Founded in 2000, Ridgetop has built an impressive list of commercial and government customers in North America, Europe, and Asia.

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