



March 3, 2004

Regarding Actel RT54SX32S and RT54SX72S FPGAs

Dear Customer,

Actel is conducting ongoing investigations regarding a limited number of observed field failures of our RT54SX32S and RT54SX72S FPGAs. To date, all of the devices that we have analyzed with confirmed damage to the antifuse elements were found to have been subjected to electrical overstress (EOS). We continue to believe that our devices are reliable when used within the datasheet limits.

Some of our customers believe that the cause of these failures has not yet been properly identified. Because of this, our detailed investigation to identify the root cause is continuing. We are aware that reliability is a major factor in the selection of devices for space flight applications and are committed to resolving these open issues. Several of our Space customers have been very actively involved in the ongoing investigations, and we appreciate their assistance.

The RTSX-S devices have been qualified since February 2002. In order to address recent customer concerns, Actel is planning to undertake a comprehensive series of tests of RTSX-S devices. The parameters of these tests have been defined by The Aerospace Corporation with inputs from several of Actel's Space customers. The tests will involve 800 RTSX-S devices and be carried out under carefully controlled conditions. This testing will encompass several experiments, including tests to assess the infant mortality and FIT rates of our RTSX-S devices when used within datasheet specifications and outside of datasheet specifications. We plan to continue to communicate with you on a regular basis as the testing proceeds and to make the results of the completed test available to all of our customers.

In addition to this ongoing device-level testing, we are also investigating methods to minimize possible in-system failures, including the effectiveness of post programmed burn-in, device screening procedures, packaging improvements and board level design recommendations.

The observed RTSX-S failures appear to be clustered in certain programs at a limited number of customers. Other customers have reported no significant problems. In addition to the devices themselves, design practices, device testing and handling procedures are being investigated in cooperation with the customers reporting problems.

In summary:

- we continue to believe that our RTSX-S devices are reliable when used within the datasheet specifications;
- we are committed to conducting a careful and systematic test of our RTSX-S devices, which we hope will allay all lingering concerns about the family; and
- we will continue to keep our RTSX-S customers informed of the progress of the ongoing investigation.

Please contact your Actel representative if you have any questions.

Yours Sincerely

A handwritten signature in blue ink, appearing to read "Esmat Hamdy", with a long, sweeping horizontal stroke extending to the right.

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