



November 10, 2006

PCN Number: 0621

PCN Change Level: Minor

Subject: Programming Software Changes for RTSX-SU (RTSX32SU and RTSX72SU) and RTSX-S (RT54SX32S and RT54SX72S) Product Families

Dear Customer,

Actel would like to draw your attention to the following programming enhancements that provide additional integrity to the reliability of the products below.

Devices Affected

- RT54SX32S (all packages, speed grades, manufacturing flows)
- RT54SX72S (all packages, speed grades, manufacturing flows)
- RTSX32SU (all packages, speed grades, manufacturing flows)
- RTSX72SU (all packages, speed grades, manufacturing flows)

Concern

Programming of Actel devices using Silicon Sculptor II and 3 consists of two main processes: programming the antifuses and running End of Programming (EOP) tests. The EOP tests consist of a number of checks that confirm the integrity of the part. Actel has implemented several enhancements to the programming software that can help in the functional validation of the programmed device

Actel Actions

The latest version of the EOP test software, which is embedded in the Silicon Sculptor programming software, includes an Enhanced Integrity Test (EIT). This is included in Silicon Sculptor software WIN v4.60.2, which can be downloaded from the Actel website: <http://www.actel.com/custsup/updates/silisculpt/sculptor4602.html>.

PLEASE NOTE THAT ALL RTSX-SU and RTSX-S PRODUCTS SHOULD USE THIS SOFTWARE REVISION FOR PROGRAMMING.

Customer Actions

Programming All New Parts

- Use the latest Silicon Sculptor software version (currently WIN v4.60.2).
- For customers who have not qualified the latest Silicon Sculptor software version for use in their production programming environment, Actel strongly recommends that you use the standalone EIT function in the Silicon Sculptor version WIN v4.60.2 to perform a post-programming check.



**Parts Already Programmed with an Earlier Version of Silicon Sculptor Software,
But Still in the Lead Frame**

Run the EIT utility in Silicon Sculptor version WIN v4.60.2. This will check for all potential shorts on devices programmed with prior Silicon Sculptor software releases.

**Parts Already Programmed with an Earlier Version of Silicon Sculptor Software,
Mounted on PCB**

Run normal functional tests. Only dynamic signals need to be toggled and observed. Module (C and R) function confirmation and timing tests are not required.

Conclusion

Silicon Sculptor software, WIN v4.60.2, will add additional integrity checks to ensure the reliability of the above products.

Actel recommends that customers upgrade to the latest version of the software.

For questions, please contact Actel's Corporate Application hotline at tech@actel.com.

Regards,

Actel Corporation