



April 17, 2007

PCN number: 0705

PCN change level: Minor

Subject: Auto-Calibration Routine in Self-Test for Silicon Sculptor (II and 3) Programmers

Dear Customer,

Starting with Silicon Sculptor software version 4.62.0, Actel has introduced an updated auto-calibration utility for the Silicon Sculptor II and Silicon Sculptor 3 programmers. When self-test is run with no adapter modules attached, the updated software may state that the low end calibration point of  $I_{CC}$  is out of range. To correct this situation, the end user simply needs to repeat self-test after fitting an SM48DB adapter DIP module to the programmer. The enhanced calibration software will then make an automatic adjustment of the low end  $I_{CC}$  calibration point internal to the programmer, if it is found to be significantly below its normal 30 mA value. This operation should be performed in accordance with the instructions provided by BP Microsystems. Inclusion of this automatic adjustment in the Silicon Sculptor software may eliminate the need to return the programmer to its manufacturer for calibration tuning. The SM48DB adaptor can be obtained from Actel and its authorized distributors.

Please note that all programmers supplied from Actel and the original equipment manufacturer, BP Microsystems, are calibrated at the BP factory. Calibration is validated at Actel and a calibration certificate, valid for one year, is attached to the programmer prior to shipment. At the end of one year, customers are encouraged to perform the "validation of calibration" tests to allow another year to be added to the certificate. The validation of calibration procedure is detailed on the Actel website: [http://www.actel.com/documents/SiliSculptProgCali\\_UG.pdf](http://www.actel.com/documents/SiliSculptProgCali_UG.pdf). If validation of calibration fails and the newly-introduced automatic calibration does not result in the unit passing, then the unit must be taken out of service. Units that are under warranty should be returned to Actel; units that have passed the warranty period should be sent directly to BP Microsystems.

In addition to the validation of calibration procedure referenced above, it is suggested that self-test be done on the programmer before each and every programming operation, especially if the programmer has not been used for more than several days. When programming multiple times per day and every day, the frequency of applying the self-test procedure may be reduced but should be done at least weekly. With the new auto-calibration routine built into the current software, it is recommended that self-test be performed with an SM48DB adapter module fitted to the programmer to ensure that the benefits of auto-calibration are obtained.

We recommend that customers use the latest version of software whenever they auto-calibrate their Silicon Sculptor programmers. The latest version of Silicon Sculptor software may be downloaded from the Actel website: [http://www.actel.com/download/program\\_debug/ss/](http://www.actel.com/download/program_debug/ss/)

If you have any questions, please contact Actel's technical support hotline at [tech@actel.com](mailto:tech@actel.com).

Regards,

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