Actel®

September 26, 2007

PCN Number: 0715

PCN Change Level: Minor

Subject: Programming software changes for SX-A and eX product Families

Dear Customer,

Actel has implemented programming enhancements for the products listed in Table 1.These enhancements were implemented in RTSX-SU and RTSX-S devices (see PCN0621), and Actel is now applying these enhancements to the commercial devices listed in Table 1.

Table 1 •   Devices Affected

Part Number	Packages	Speed Grades	Temperature Grades	DSCC Part Numbers
A54SX08A	FG144/FGG144	Std., F, 1, 2	C, I, A	N/A
A54SX08A	PQ208/PQG208	Std., F, 1, 2	C, I, A	N/A
A54SX08A	TQ100/TQG100	Std., F, 1, 2	C, I, A	N/A
A54SX08A	TQ144/TQG144	Std., F, 1, 2	C, I, A	N/A
A54SX16A	FG144/FGG144	Std., F, 1, 2	C, I, A, M	N/A
A54SX16A	FG256/FGG256	Std., F, 1, 2	C, I, A, M	N/A
A54SX16A	PQ208/PQG208	Std., F, 1, 2	C, I, A, M	N/A
A54SX16A	TQ100/TQG100	Std., F, 1, 2	C, I, A, M	N/A
A54SX16A	TQ144/TQG144	Std., F, 1, 2	C, I, A, M	N/A
A54SX32A	BG329/BGG329	Std., F, 1, 2	C, I, M	N/A
A54SX32A	FG144/FGG144	Std., F, 1, 2	C, I, A, M	N/A
A54SX32A	FG256/FGG256	Std., F, 1, 2	C, I, A, M	N/A
A54SX32A	FG484/FGG484	Std., F, 1, 2	C, I, M	N/A
A54SX32A	PQ208/PQG208	Std., F, 1, 2	C, I, A, M	N/A
A54SX32A	TQ100/TQG100	Std., F, 1, 2	C, I, A, M	N/A
A54SX32A	TQ144/TQG144	Std., F, 1, 2	C, I, A, M	N/A
A54SX32A	TQ176/TQG176	Std., F, 1, 2	C, I, M	N/A
A54SX32A	CQ84	Std., 1	C, M, B	N/A
A54SX32A	CQ208	Std., 1	C, M, B	5962-0151801QYC, 5962-0151802QYC
A54SX32A	CQ256	Std., 1	C, M,B	5962-0151801QXC, 5962-0151802QXC
A54SX72A	FG256/FGG256	Std., F, 1, 2	C, I, A, M	N/A
A54SX72A	FG484/FGG484	Std., F, 1, 2	C, I, A, M	N/A

Table 1 •   Devices Affected (Continued)

Part Number	Packages	Speed Grades	Temperature Grades	DSCC Part Numbers
A54SX72A	PQ208/PQG208	Std., F, 1, 2	C, I, A, M	N/A
A54SX72A	CQ208	Std., 1	C, M,B	5962-0054301QYC, 5962-0054302QYC
A54SX72A	CQ256	Std., 1	C, M,B	5962-0054301QXC, 5962-0054302QXC
eX64	CS49/CSG49	Std., F, P	C, I, A	N/A
eX64	CS128/CSG128	Std., F, P	C, I, A	N/A
eX64	TQ64/TQG64	Std., F, P	C, I, A	N/A
eX64	TQ100/TQG100	Std., F, P	C, I, A	N/A
eX128	CS49/CSG49	Std., F, P	C, I, A	N/A
eX128	CS128/CSG128	Std., F, P	C, I, A	N/A
eX128	TQ64/TQG64	Std., F, P	C, I, A	N/A
eX128	TQ100/TQG100	Std., F, P	C, I, A	N/A
eX256	CS128/CSG128	Std., F, P	C, I, A	N/A
eX256	CS180/CSG180	Std., F, P	C, I, A	N/A
eX256	TQ100/TQG100	Std., F, P	C, I, A	N/A

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 device. Actel has implemented several enhancements to the programming software that can help in the functional validation of the programmed device.

The EOP test software, which is embedded in the Silicon Sculptor programming software, includes an Enhanced Integrity Test (EIT). For SX-A devices, this is included in Silicon Sculptor software v4.62.0 and later, and for eX devices, this test is included in Silicon Sculptor software v4.64.0 and later. Software can be downloaded from the Actel Website: http://www.actel.com/download/program_debug/ss/.

The above mentioned versions of Silicon Sculptor software will add additional programming integrity checks to the products listed in Table 1.

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

If you have any questions, please contact Actel's Application Technical Support at tech@actel.com.

Regards,

Actel Corporation