



June 8, 2011

PCN Number: 1109

PCN Change Level: Major

Subject: STAPL File Version Dependency for ProASIC3 FPGAs

Dear Customer,

This is to inform you that in April 2008, Microsemi SoC Products Group (formerly Actel) made a 1-bit modification to the UMC fabricated ProASIC[®]3 device IDCODE which is programmed into each device produced. To account for this change, Microsemi updated this device IDCODE information in the STAPL file generated from the Designer software included in Libero[®] Integrated Design Environment (IDE) version 8.2.

Programming the new ProASIC3 device (with date code later than 0816) with an old STAPL file generated from Designer software prior to Libero IDE version 8.2 will result in a programming failure since the IDCODE in the new device does not match the IDCODE information expected by the old STAPL file. The resulting error message is "Exit 6 – Failed to verify IDCODE."

Microsemi always recommends that customers use the latest version of software available on the website: <http://www.actel.com/download/software/libero/default.aspx>.

Microsemi issued the following two PCNs in 2007 and 2008 to inform customers about the new fabrication vendor (UMC) for the ProASIC3 devices, stating that UMC's process was qualified as a second source foundry to better support the ProASIC3 capacity requirements.

- **A3P060, A3P125, A3P250**
http://www.actel.com/documents/PCN0711_PA3_UMC.pdf
- **A3P400, A3P1000**
http://www.actel.com/documents/PCN0813_A3P400_1000_vendor.pdf

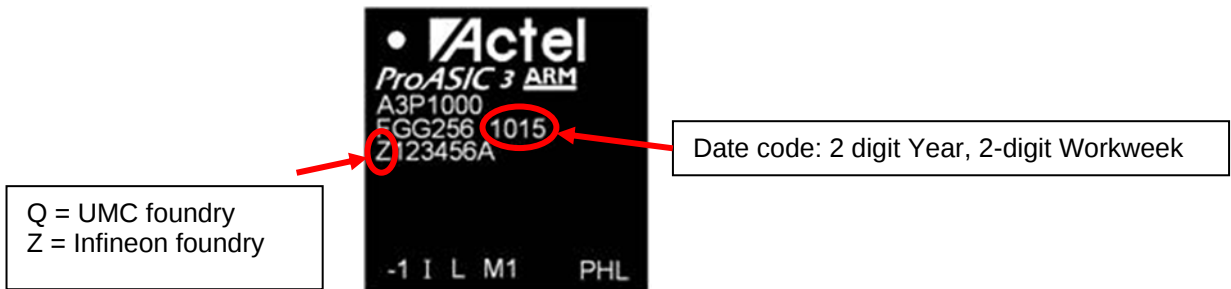


Figure 1 • ProASIC3 Device Marking Specification for Foundry and Date Code

Required Customer Action

UMC ProASIC3 silicon with date code later than 0816 (can be identified as shown in Figure 1) must be programmed with a STAPL file generated by Libero IDE/Designer v8.2 (capture 8.2.0.17) or later.

UMC ProASIC3 silicon with a date code of 0816 or earlier will have an old IDCODE, but a STAPL file generated from Libero IDE/Designer v8.2 (capture 8.2.0.17) or later will be backwards compatible with the older devices.

The current version of Libero IDE is v9.1 and customers need to check for the latest version from the Microsemi SoC Products Group website in the future.

Note: *ProASIC3 silicon from UMC and Infineon foundries is identical in terms of form, fit and functionality. Re-generation of the STAPL file will not change the functionality, timing or performance of your design. No re-verification of your design is required.*

A list of affected part numbers is provided in the Appendix.

Please contact Corporate Applications at soc_tech@microsemi.com if there are any questions.

Regards,

Microsemi SoC Products Group



Appendix

Table 1 • Affected Part Numbers

A3P060-CS121	A3P060-QNG132	A3P060-1TQG144I
A3P060-CSG121	A3P060-1QNG132	A3P060-2TQG144I
A3P060-CS121I	A3P060-2QNG132	A3P060-2TQG144I
A3P060-CSG121I	A3P060-QNG132I	A3P060-VQ100
A3P060-FG144	A3P060-1QNG132I	A3P060-VQG100
A3P060-FGG144	A3P060-2QNG132I	A3P060-1VQ100
A3P060-1FG144	A3P060-TQ144	A3P060-1VQG100
A3P060-1FGG144	A3P060-TQG144	A3P060-2VQ100
A3P060-2FG144	A3P060-1TQ144	A3P060-2VQG100
A3P060-2FGG144	A3P060-1TQG144	A3P060-VQ100I
A3P060-FG144I	A3P060-2TQ144	A3P060-VQG100I
A3P060-FGG144I	A3P060-2TQG144	A3P060-1VQ100I
A3P060-1FG144I	A3P060-TQ144I	A3P060-1VQG100I
A3P060-1FGG144I	A3P060-TQG144I	A3P060-2VQ100I
A3P060-2FG144I	A3P060-1TQ144I	A3P060-2VQG100I
A3P060-2FGG144I		
A3P125-FG144	A3P125-PQG208I	A3P125-TQG144I
A3P125-FGG144	A3P125-1PQG208I	A3P125-1TQ144I
A3P125-1FG144	A3P125-1PQG208I	A3P125-1TQG144I
A3P125-1FGG144	A3P125-2PQG208I	A3P125-2TQ144I
A3P125-2FG144	A3P125-2PQG208I	A3P125-2TQG144I
A3P125-2FGG144	A3P125-QNG132	A3P125-VQ100
A3P125-FG144I	A3P125-1QNG132	A3P125-VQG100
A3P125-FGG144I	A3P125-2QNG132	A3P125-1VQ100
A3P125-1FG144I	A3P125-QNG132I	A3P125-1VQG100
A3P125-1FGG144I	A3P125-1QNG132I	A3P125-2VQ100
A3P125-2FG144I	A3P125-2QNG132I	A3P125-2VQG100
A3P125-2FGG144I	A3P125-TQ144	A3P125-VQ100I



Table 1 • Affected Part Numbers

A3P125-PQ208	A3P125-TQG144	A3P125-VQG100I
A3P125-PQG208	A3P125-1TQ144	A3P125-1VQ100I
A3P125-1PQ208	A3P125-1TQG144	A3P125-1VQG100I
A3P125-1PQG208	A3P125-2TQ144	A3P125-2VQ100I
A3P125-2PQ208	A3P125-2TQG144	A3P125-2VQG100I
A3P125-2PQG208	A3P125-TQ144I	
A3P125-PQ208I		
A3P250-FG144	A3P250-FG256I	A3P250-QNG132
A3P250-FGG144	A3P250-FGG256I	A3P250-1QNG132
A3P250-1FG144	A3P250-1FG256I	A3P250-2QNG132
A3P250-1FGG144	A3P250-1FGG256I	A3P250-QNG132I
A3P250-2FG144	A3P250-2FG256I	A3P250-1QNG132I
A3P250-2FGG144	A3P250-2FGG256I	A3P250-2QNG132I
A3P250-FG144I	A3P250-PQ208	A3P250-VQ100
A3P250-FGG144I	A3P250-PQG208	A3P250-VQG100
A3P250-1FG144I	A3P250-1PQ208	A3P250-1VQ100
A3P250-1FGG144I	A3P250-1PQG208	A3P250-1VQG100
A3P250-2FG144I	A3P250-2PQ208	A3P250-2VQ100
A3P250-2FGG144I	A3P250-2PQG208	A3P250-2VQG100
A3P250-FG256	A3P250-PQ208I	A3P250-VQ100I
A3P250-FGG256	A3P250-PQG208I	A3P250-VQG100I
A3P250-1FG256	A3P250-1PQ208I	A3P250-1VQ100I
A3P250-1FGG256	A3P250-1PQG208I	A3P250-1VQG100I
A3P250-2FG256	A3P250-2PQ208I	A3P250-2VQ100I
A3P250-2FGG256	A3P250-2PQG208I	A3P250-2VQG100I
M1A3P250-FG144	M1A3P250-PQ208	M1A3P250-VQ100
M1A3P250-FGG144	M1A3P250-PQG208	M1A3P250-VQG100
M1A3P250-1FG144	M1A3P250-1PQ208	M1A3P250-1VQ100



Table 1 • Affected Part Numbers

M1A3P250-1FGG144	M1A3P250-1PQG208	M1A3P250-1VQG100
M1A3P250-2FG144	M1A3P250-2PQ208	M1A3P250-2VQ100
M1A3P250-2FGG144	M1A3P250-2PQG208	M1A3P250-2VQG100
M1A3P250-FG144I	M1A3P250-PQ208I	M1A3P250-VQ100I
M1A3P250-FGG144I	M1A3P250-PQG208I	M1A3P250-VQG100I
M1A3P250-1FG144I	M1A3P250-1PQ208I	M1A3P250-1VQ100I
M1A3P250-1FGG144I	M1A3P250-1PQG208I	M1A3P250-1VQG100I
M1A3P250-2FG144I	M1A3P250-2PQ208I	M1A3P250-2VQ100I
M1A3P250-2FGG144I	M1A3P250-2PQG208I	M1A3P250-2VQG100I
A3P400-FG144	A3P400-2FG256	A3P400-1FG484I
A3P400-FGG144	A3P400-2FGG256	A3P400-1FGG484I
A3P400-1FG144	A3P400-FG256I	A3P400-2FG484I
A3P400-1FGG144	A3P400-FGG256I	A3P400-2FGG484I
A3P400-2FG144	A3P400-1FG256I	A3P400-PQ208
A3P400-2FGG144	A3P400-1FGG256I	A3P400-PQG208
A3P400-FG144I	A3P400-2FG256I	A3P400-1PQ208
A3P400-FGG144I	A3P400-2FGG256I	A3P400-1PQG208
A3P400-1FG144I	A3P400-FG484	A3P400-2PQ208
A3P400-1FGG144I	A3P400-FGG484	A3P400-2PQG208
A3P400-2FG144I	A3P400-1FG484	A3P400-PQ208I
A3P400-2FGG144I	A3P400-1FGG484	A3P400-PQG208I
A3P400-FG256	A3P400-2FG484	A3P400-1PQ208I
A3P400-FGG256	A3P400-2FGG484	A3P400-1PQG208I
A3P400-1FG256	A3P400-FG484I	A3P400-2PQ208I
A3P400-1FGG256	A3P400-FGG484I	A3P400-2PQG208I
M1A3P400-FG144	M1A3P400-2FG256	M1A3P400-1FG484I
M1A3P400-FGG144	M1A3P400-2FGG256	M1A3P400-1FGG484I
M1A3P400-1FG144	M1A3P400-FG256I	M1A3P400-2FG484I



Table 1 • Affected Part Numbers

M1A3P400-1FGG144	M1A3P400-FGG256I	M1A3P400-2FGG484I
M1A3P400-2FG144	M1A3P400-1FG256I	M1A3P400-PQ208
M1A3P400-2FGG144	M1A3P400-1FGG256I	M1A3P400-PQG208
M1A3P400-FG144I	M1A3P400-2FG256I	M1A3P400-1PQ208
M1A3P400-FGG144I	M1A3P400-2FGG256I	M1A3P400-1PQG208
M1A3P400-1FG144I	M1A3P400-FG484	M1A3P400-2PQ208
M1A3P400-1FGG144I	M1A3P400-FGG484	M1A3P400-2PQG208
M1A3P400-2FG144I	M1A3P400-1FG484	M1A3P400-PQ208I
M1A3P400-2FGG144I	M1A3P400-1FGG484	M1A3P400-PQG208I
M1A3P400-FG256	M1A3P400-2FG484	M1A3P400-1PQ208I
M1A3P400-FGG256	M1A3P400-2FGG484	M1A3P400-1PQG208I
M1A3P400-1FG256	M1A3P400-FG484I	M1A3P400-2PQ208I
M1A3P400-1FGG256	M1A3P400-FGG484I	M1A3P400-2PQG208I
A3P1000-FG144	A3P1000-1FGG256	A3P1000-2FG484I
A3P1000-FGG144	A3P1000-2FG256	A3P1000-2FGG484I
A3P1000-1FG144	A3P1000-2FGG256	A3P1000-PQ208
A3P1000-1FGG144	A3P1000-FG256I	A3P1000-PQG208
A3P1000-2FG144	A3P1000-FGG256I	A3P1000-1PQ208
A3P1000-2FGG144	A3P1000-1FG256I	A3P1000-1PQG208
A3P1000-FG144I	A3P1000-1FGG256I	A3P1000-2PQ208
A3P1000-FGG144I	A3P1000-2FG256I	A3P1000-2PQG208
A3P1000-1FG144I	A3P1000-2FGG256I	A3P1000-PQ208I
A3P1000-1FGG144I	A3P1000-FG484	A3P1000-PQG208I
A3P1000-2FG144I	A3P1000-FGG484	A3P1000-1PQ208I
A3P1000-2FGG144I	A3P1000-1FG484	A3P1000-1PQG208I
A3P1000-FG144M	A3P1000-1FGG484	A3P1000-2PQ208I
A3P1000-FGG144M	A3P1000-2FG484	A3P1000-2PQG208I
A3P1000-1FG144M	A3P1000-2FGG484	A3P1000-PQ208M
A3P1000-1FGG144M	A3P1000-FG484I	A3P1000-PQG208M



Table 1 • Affected Part Numbers

A3P1000-FG256	A3P1000-FGG484I	A3P1000-1PQ208M
A3P1000-FGG256	A3P1000-1FG484I	A3P1000-1PQG208M
A3P1000-1FG256	A3P1000-1FGG484I	
M1A3P1000-FG144	M1A3P1000-1FGG256	M1A3P1000-2FG484I
M1A3P1000-FGG144	M1A3P1000-2FG256	M1A3P1000-2FGG484I
M1A3P1000-1FG144	M1A3P1000-2FGG256	M1A3P1000-PQ208
M1A3P1000-1FGG144	M1A3P1000-FG256I	M1A3P1000-PQG208
M1A3P1000-2FG144	M1A3P1000-FGG256I	M1A3P1000-1PQ208
M1A3P1000-2FGG144	M1A3P1000-1FG256I	M1A3P1000-1PQG208
M1A3P1000-FG144I	M1A3P1000-1FGG256I	M1A3P1000-2PQ208
M1A3P1000-FGG144I	M1A3P1000-2FG256I	M1A3P1000-2PQG208
M1A3P1000-1FG144I	M1A3P1000-2FGG256I	M1A3P1000-PQ208I
M1A3P1000-1FGG144I	M1A3P1000-FG484	M1A3P1000-PQG208I
M1A3P1000-2FG144I	M1A3P1000-FGG484	M1A3P1000-1PQ208I
M1A3P1000-2FGG144I	M1A3P1000-1FG484	M1A3P1000-1PQG208I
M1A3P1000-FG144M	M1A3P1000-1FGG484	M1A3P1000-2PQ208I
M1A3P1000-FGG144M	M1A3P1000-2FG484	M1A3P1000-2PQG208I
M1A3P1000-1FG144M	M1A3P1000-2FGG484	M1A3P1000-PQ208M
M1A3P1000-1FGG144M	M1A3P1000-FG484I	M1A3P1000-PQG208M
M1A3P1000-FG256	M1A3P1000-FGG484I	M1A3P1000-1PQ208M
M1A3P1000-FGG256	M1A3P1000-1FG484I	M1A3P1000-1PQG208M
M1A3P1000-1FG256	M1A3P1000-1FGG484I	
M7A3P1000-FG144	M7A3P1000-2FG256	M7A3P1000-1FG484I
M7A3P1000-FGG144	M7A3P1000-2FGG256	M7A3P1000-1FGG484I
M7A3P1000-1FG144	M7A3P1000-FG256I	M7A3P1000-2FG484I
M7A3P1000-1FGG144	M7A3P1000-FGG256I	M7A3P1000-2FGG484I
M7A3P1000-2FG144	M7A3P1000-1FG256I	M7A3P1000-PQ208
M7A3P1000-2FGG144	M7A3P1000-1FGG256I	M7A3P1000-PQG208



Table 1 • Affected Part Numbers

M7A3P1000-FG144I	M7A3P1000-2FG256I	M7A3P1000-1PQ208
M7A3P1000-FGG144I	M7A3P1000-2FGG256I	M7A3P1000-1PQG208
M7A3P1000-1FG144I	M7A3P1000-FG484	M7A3P1000-2PQ208
M7A3P1000-1FGG144I	M7A3P1000-FGG484	M7A3P1000-2PQG208
M7A3P1000-2FG144I	M7A3P1000-1FG484	M7A3P1000-PQ208I
M7A3P1000-2FGG144I	M7A3P1000-1FGG484	M7A3P1000-PQG208I
M7A3P1000-FG256	M7A3P1000-2FG484	M7A3P1000-1PQ208I
M7A3P1000-FGG256	M7A3P1000-2FGG484	M7A3P1000-1PQG208I
M7A3P1000-1FG256	M7A3P1000-FG484I	M7A3P1000-2PQ208I
M7A3P1000-1FGG256	M7A3P1000-FGG484I	M7A3P1000-2PQG208I