

ATMEL FPGA User Group Workshop at ESTEC on March 3rd, 2010

Organised by ESA, CNES and ATMEL

ATMEL has proven the principle of the Radiation Hardened By Design (RHBD) FPGA after its first experience on the AT40FEL device with the support of European Space Agencies. Through the use of a RHBD FPGA, users do not have to take into account any difficult mitigation techniques. By designing its FPGA as a commercial FPGA, users will get a radiation hardened device without any lengthy qualification or final processing and verification at the end. TID (Total Ionising Dose) and SEE (Single Event Effects) are guaranteed by design.

ATMEL is currently introducing its 280 kgates ATF280F device and is designing Multi Chip Modules (MCMs) and a new 450 kgates ATFS450 FPGA on a 130nm SOI (Silicon-On-Insulator) process.

American FPGA competitors have the ability to support their software development on a large worldwide consumer basis, however, ATMEL space FPGAs have difficulties in reaching the same levels of quality and ease of use.

To improve the offering and to enhance the IDS software tools, CNES has launched an ATMEL FPGA User Group whose main objectives are to collect all improvements requests, define priorities and exchange user experiences.

The FPGA User's Group Web is based on a public website where the relevant information and files related to ATMEL FPGA families can be found. In addition to such information already available through the normal channels (ATMEL main website, protected site, CD-ROMs...), the User Group web will also include a Forum where users can post questions and answers. The forum will shortly be open to all users.

ATMEL FPGA User Group WORKSHOP

AT40K
ATF280
ATFS450
MCM AT697+ATF280
MCM 2x(ATF280+AT69170)

Wednesday 3rd March 2010

Start: 09:00

AGENDA

Introduction

09:00 Current position by ESA and CNES

Technical Presentations:

09:15 ATMEL status, radiation results (25mn pres. + 5mn questions)

09:45 Politecnico di Torino, Application Oriented SEU sensitiveness (25mn pres. + 5mn questions)

10:15 IAS experience (25mn pres. + 5mn questions)

10:45 Astrium experience (25mn pres. + 5mn questions)

Break

11:30 TAS experience (25mn pres. + 5mn questions)

12:00 DA-Design Presentation (25mn pres. + 5mn questions)

12:30 ATMEL, how to optimise ATF280 usage (25mn pres. + 5mn questions)

Lunch

14:00 User Group presentation and demo

14:30 General Workshop on IDS Improvements. Priorities. Mentor tools.

15:00 Back room Workshops

- IDS (how to use IDS)
- User Group (Web demo)
- IPs (what are the needs)

17:00 **Wrap up**

17:30 Close