ATMEL SPACEWIRE PRODUCTS FAMILY

Session: Spacewire Components (3)

Short Paper

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ABSTRACT

The paper presents the status of the Spacewire products available at ATMEL for space applications. This includes the Spacewire SMCS communication controller ASICs (3 Spacewire links or one Spacewire link version), the Spacewire Router ASIC and the Spacewire Remote Terminal Controller (RTC) . It will give a high-level overview of the product functionalities and main characteristics (packaging, operating ranges...). Some information will be given on the various documents provided to the customers (technical or quality related), on the tools and hardware offering around these chips, on the support brought and on the availability dates for engineering models as well as for flight models. A focus will be done on the technologies on which these products rely, as well on the expected radiation capabilities, in term of total dose as well as in term of single event effects. The paper will also describe the way to interface all these Spacewire products with other ATMEL rad-hard devices, such as the AT697 Sparc V8 processor or the ATF280 rad-hard SRAM based FPGA. The possibility to build a complete Spacewire network based on rad-hard products will thus be underlined.