

**FAST DIGITAL SIGNAL PROCESSING WITH FPGA ABOARD
THE SPACE RADIO TELESCOPE "RADIOASTRON".**

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"RadioAstron" is a project that will put a 10-meter radio telescope into a high elliptical orbit in order to make VLBI observations in conjunction with radio telescopes on the ground. General description of the project is presented being focused on the problems of fast acquisition, accurate on-the-fly digital signal processing and reliable transmitting to the Earth scientific and telemetry data. New generation of onboard equipment have been designed on the base of modern microelectronic technologies like flash ADC and FPGA. It enabled improves the characteristics which are so important for space equipment - reduce weight, size and increase reliability and testability of the equipment.