

Digital Signal Processor With Non-Conventional Recurrent Data-Flow Architecture

Abstract

The paper presents implementation results of the digital signal processor with nonconventional recurrent data-flow architecture. It is considered that the computer device focused on effective execution of digital signal processing algorithms has organization features, in addition to this architecture specificity. The paper shows that the hardware involved with this work is based on FPGA Stratix III produced by Altera, and as the design entry language VHDL is used. It is demonstrated that the synthesis efficiency of the basic functional blocks in FPGA depends on VHDL coding style. Synthesis results are also presented.