Implementation of a stepping motor control system on a chip using MIPS-like architecture

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ABSTRACT

The objectives of this study are to study MIPS-like architecture and application for stepping-motor control system on a chip. In association with algorithmic state machine (ASM) and Verilog hardware description language, the system chip is carried out through the behavioral, mixed and structure stage by simulation of SynaptiCAD. In addition, the system chip is implemented into the Field Programmable Gate Array, FPGA chip for rapid verification with an application circuit to step-motor control.

Keywords : MIPS、ASM、Verilog、FPGA

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