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Design of an FPGA-based USB 3.0 controller

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The traditional USB 3.0 communication based on FPGA uses an external chip as a USB PHY or a USB controller including a USB PHY. This paper realizes a USB 3.0 controller using FPGA resources, in which FPGA logic realizes a serial interface engine, and an FPGA internal transceiver is a USB PHY. Used slices percent after implementation is ~5% in Kintex-7 325t. The test result shows that the speed of USB 3.0 is more than 320 MB/s bulk-in and bulk-out transfers.

Minioral

No

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No

Are you a student?

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