The development of link controllers for on-board data collection systems on Avalon bus

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I. Introduction

The paper studies the development of the link controllers of on-board systems. We focused on Avalon bus, which is used to create SoC's. The result of this paper is two link controllers for on-board systems developed for Avalon bus.

There is a lot of ways to design embedded systems, and one of them is to make them as SoC. SoC's use bus architectures to unite peripherial and processors on crystals in systems on crystals. Avalon is a simple bus architecture that is used to design SoC's based on Altera devices. In spite of it's characteristics and easy way to connect devices, there is a few of controllers that can be used in SoC designed for Avalon bus. So the development of link controllers was made.