This version (09 Jan 2021 00:34) was ***approved*** by Robin Getz.
The Previously approved version (08 Jan 2021 11:12) is available.

ADS8-V3EBZ HIGH SPEED CARRIER CARD

Table of Contents

Preface

The ADS8-V3 Carrier Card was developed to support the evaluation of Analog Devices High Speed Data Converters with serial line rates up to 16Gbps. This Wiki site provides a high level overview of the platform. The ADS8-V3 is intended to be used only with specified Analog Devices Evaluation Boards. The ADS8-V3 is not intended to be used as a general purpose development platform, and no support is available for standalone operation. The ADS8-V3 may contain hardware features not fully productized or supported by our default customer evaluation configurations. Please refer to Xilinx and its approved distributors for general purpose FPGA Development Kits.

ADS8-V3EBZ Features

1. Xilinx Kintex Ultrascale XCKU040-3FFVA1156E FPGA.

2. One (1) FMC+ connector.

3. Twenty (20) 16Gbps transceivers supported by one (1) FMC+ connector.

4. DDR4 SDRAM.

5. Simple USB 3.0 port interface.

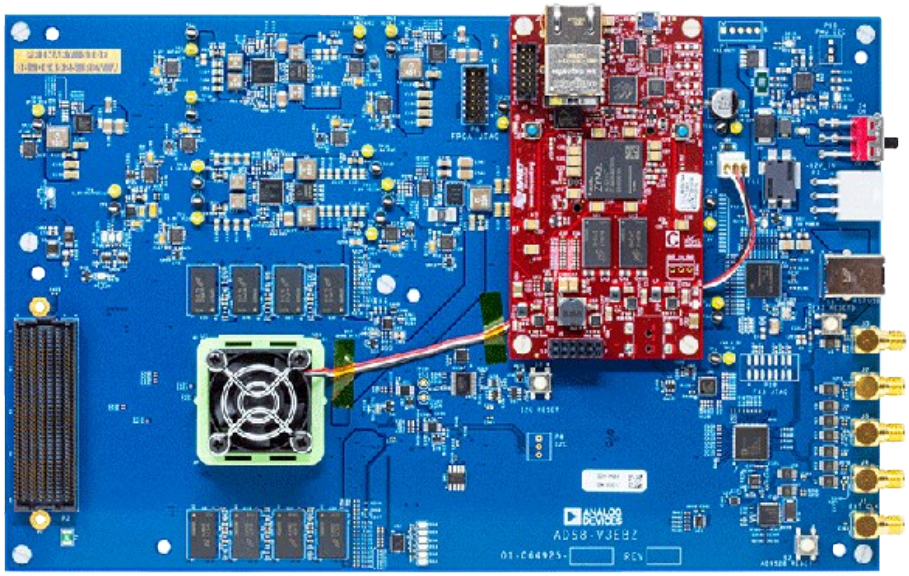

Figure 1. ADS8-V3EBZ High Speed Carrier Card (Top)

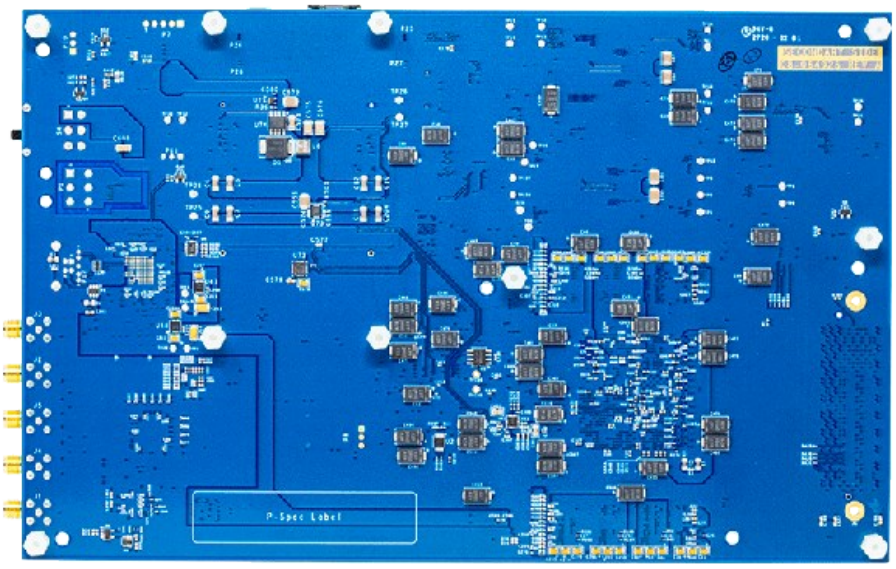

Figure 2. ADS8-V3EBZ High Speed Carrier Card (Bottom)

Using the ADS8-V3EBZ to evaluate High Speed Converters

Overview

When connected to a specified Analog Devices high speed converter evaluation board, the ADS8-V3EBZ works as a data generation and acquisition board. Designed to support the highest speed JESD204B converters, the FPGA on the ADS8-V3EBZ acts as the data and control interface. A typical test setup is shown below.

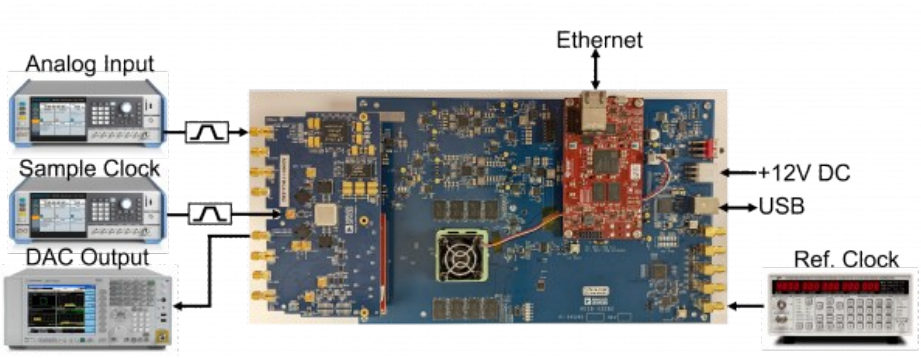

Figure 3. ADS8-V3EBZ connected to High Speed Converter Evaluation Board

Helpful Documents

- AN-878 Application Note, *High Speed ADC SPI Control Software*
- AN-877 Application Note, *Interfacing to High Speed ADCs via SPI*
- AN-835 Application Note, *Understanding ADC Testing and Evaluation*

Software Download Links

- High Speed Converter SPI Control Software, en/design-center/advanced-selection-and-design-tools/interactive-design-tools/spicontroller.html
- Analysis | Control | Evaluation (ACE) Software, en/design-center/evaluation-hardware-and-software/ace-software.html

Design and Integration Files

- Artwork Archive: 09-064925-01a.zip
- Assembly Archive: 01-064925-01a.zip
- BOM Archive: 05-064925-01-a.zip

- BRD Archive: 08_064925a.zip
- Schematic Archive: 02-064925-01-a.zip

Data sheets and user guides provide additional product specific information and should be consulted when using high speed converter evaluation boards. All documents and software tools are available at High Speed Converter Eval Boards. For additional information or questions, visit our High-Speed ADC and DAC Ezone Support Portal at Data Converters EngineerZone or call 1-800-ANALOGD.

ADS8-V3EBZ Supported Evaluation Boards

Refer to the Analog Devices High Speed Converter evaluation board product page at High Speed Converter Eval Boards for a table of ADS8-V3EBZ compatible evaluation boards.

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resources/eval/ads8-v3ebz.txt · Last modified: 09 Jan 2021 00:32 by Robin Getz

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