AMC590 (similar products)

ADC 8-bit @ up to 56 GSPS, 1/2/4 Channel, UltraScale™ XCKU115, AMC

Xilinx UltraScale™ XCKU115 FPGA

8-bit ADC at up to 56 GSPS

1 x 56, 2 x 28 or 4 x 14 GSPS channel

24 GB of DDR4 Memory (3 banks of 64-bit)

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The AMC590 used the Fujitsu MB8AC2070 ADC (Analog to Digital Converter) to provide 56 GSPS from a single channel, 28 GSPS from two channels, or 14 GSPS from four channels (user selectable). The board is compliant to the AMC.1 and AMC.2 specifications.

The AMC590 allows the implementation of extremely fast, high-resolution ADCs in CMOS process technology. The ADC is ideal for applications that require ultra-high performance analog and digital processing such as 100G applications. Achieved input bandwidth depends on system configuration and operating conditions, contact VadaTech for details.

The AMC590 features a Xilinx UltraScale™ XCKU115 FPGA with 5520 DSP Slices. The FPGA interfaces directly to the AMC and allows the core to interface to the host with multiple protocols such as 40GbE, 10GbE, PCIe or SRIO. The FPGA has 3 banks of 64-bit DDR4 memory (24 GB total).

See Solution Brief for an overview of a 56 GSPS digitizer with IRIGB/GPS timestamping.

Key Features

- Xilinx UltraScale™ XCKU115 FPGA
- 8-bit ADC at up to 56 GSPS
- 1 x 56, 2 x 28 or 4 x 14 GSPS channel
- 24 GB of DDR4 Memory (3 banks of 64-bit)
- ADC is 65 nm CMOS process technology

- Very low power consumption (5W for the ADC)
- Single module, mid-size or full-size
- Calibration warning and over-range flags
- –3 dB analog input bandwidth nominally 15 GHz
- Internal 14 GHz VCO/PLL per I/Q ADC pair
- Differential analog input: 1.0V PPD

Benefits

Specifications

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