Board level

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Agilent Technologies

Agilent U1083A, 10- and 14-bit High-Speed VME/VXS Modules

Based on a scalable, modular architecture, the Agilent Acqiris VME/VXS board family platform U1083A features two Xilinx Virtex-4 FPGAs, one targeted at digital signal processing and one for data flow control. The embedded Flash memory allows the platform to be easily reconfigured to perform user-defined applications.

- U1083-001: 14-bit dual-channel, 10 to 500 MHz bandwidth, 1.2 GS/s high-speed generator
- U1083-002: 10-bit dual-channel, up to 3 GHz bandwidth, 2 GS/s, high-speed digitizer
- U1083-003: 10-bit ADC, 14-bit DAC, 1.2 GS/s high-speed data converter

This architecture makes the U1083A platform ideal for demanding wideband, high dynamic range applications such as Electronic Warfare (EW), ESM/ECM applications, radar digital receiver, telecommunications, and semiconductor testing, where high sample rate, high data processing capabilities, and high throughput are mandatory.

FEATURES

- 6U single slot VME/VXS (VITA 41)
- 2 Xilinx Virtex-4 FPGAs, SX55 and FX100
- Firmware Development Kit containing FPGA interface cores, software, and reference design
- Two onboard DDR2 SDRAM banks (512 MB total) and local 128 MB Flash memory able to store multiple FPGA bit streams
- VXS VITA 41.0 compliant, 8x 3.125 Gbps serial I/O links on P0 connector
- Two front panel SFP slots for up to 3.125 Gbps fiber or copper transceivers
- Auxiliary I/O mezzanine with multipurpose 12-bit 65 MS/s ADC, 12-bit 130 MS/s DAC, and 14 digital I/O ports on front panel