TOC

Other pages:

Description

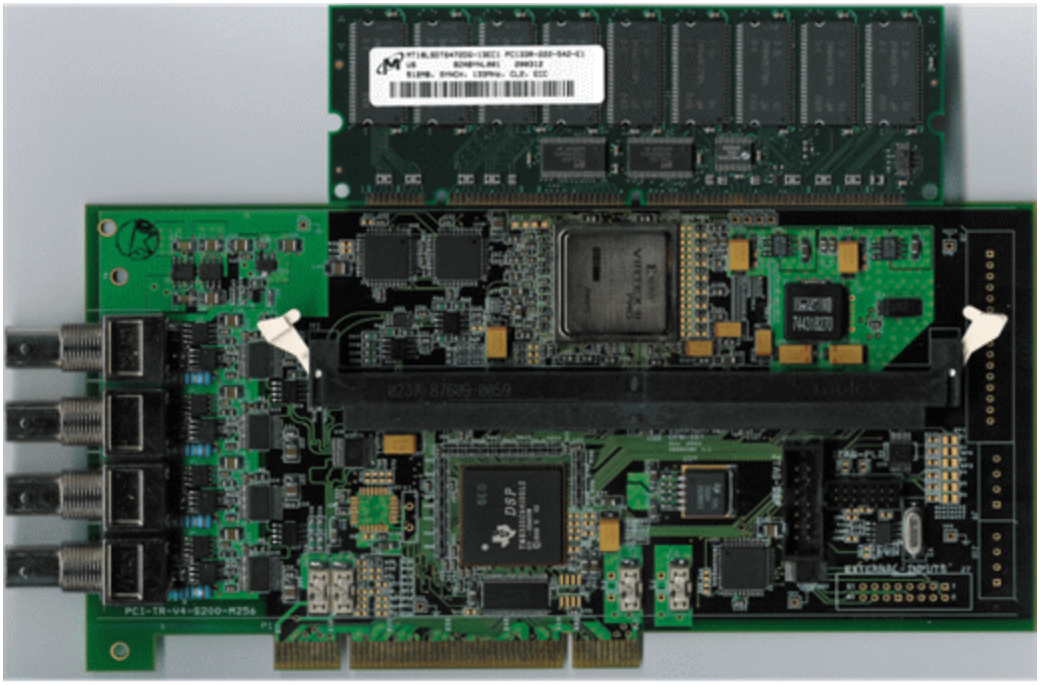
PCI transient recorder with four 8-bit ADC channels sampling at 200 MSPS. Automatic pulse detection circuitry triggers the storage of a programmable number of samples to the onboard SDRAM.

A TMS320C64xx DSP from Texas Instruments® and an Xilinx®FPGA allows programming of real-time algorithms.

The main target application is spectroscopy. It is currently being used on the JET-EFDA magnetic proton recoil neutron (MPRu) diagnostic.

Characteristics

- Four independent channels.
- 200 Ms/s, 8-bit synchronous sampling.
- Programmable input offset.
- 32 Msample/channel (512 MBytes)
- On-board digital signal processing by a DSP and FPGA.
- The number of samples per pulse is set by software. All multiple of 8 values (except zero) and up to 256 samples are allowed.
- 0 to -0.5V @50Ω (other values can be specified), single-ended input.
- Programmable digital trigger detection in steps of 1/256 of the maximum input voltage. Other complex trigger detection schemes can optionally be implemented in the programmable logic hardware.
- The trigger level is set for each channel individually.
- Pre and post trigger depths are set by software and for each channel individually.
- 10 ns time stamps (optionally 100 ns).



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