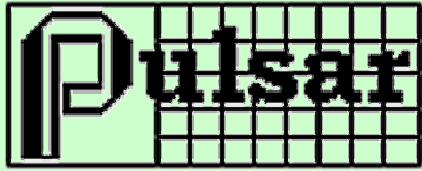


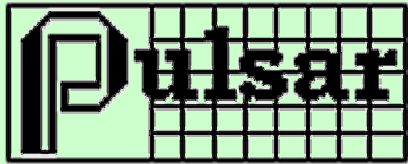
Hardware Design Experience in Pulsar, Ltd.

Dnepropetrovsk
2007



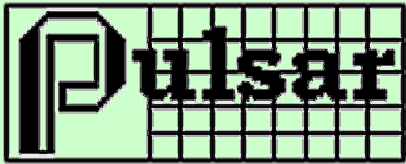
About Pulsar, Ltd.

- Founded in 1991
- One of leading Hardware Design Company in Ukraine
- Pulsar has designed over 40 digital and analog-digital designs

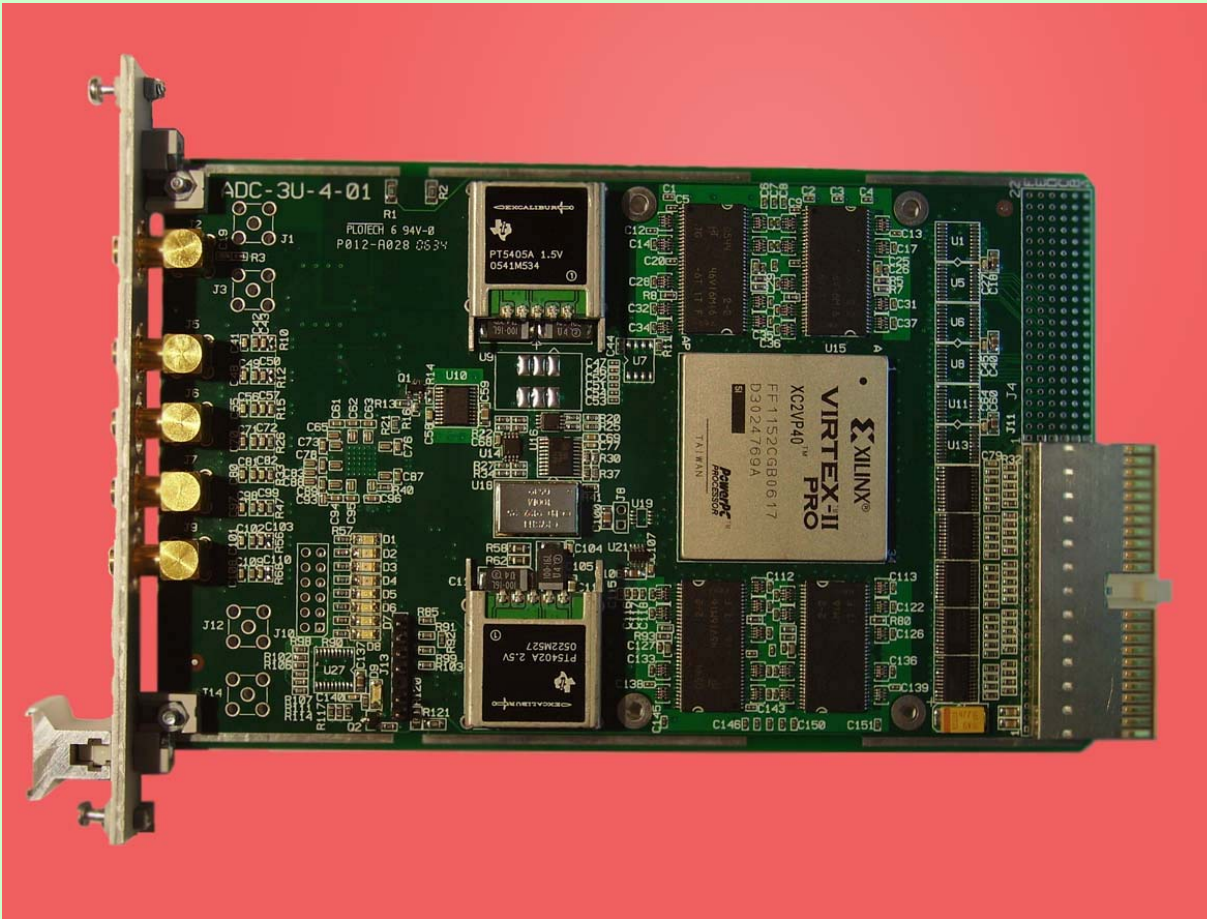


List of designs

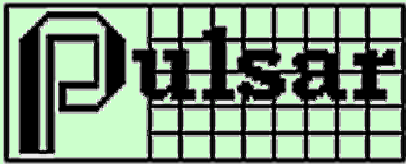
- 2-channel 12-,14-bit analog-digital converters and digital signal processing devices (100 Msps)
- 16-128 channel 12-bit ADC DSP systems (50 Msps)
- Ultrasound defectoscope “Ultrazond”
- Gas-meter “Kurs-01”
- And more...



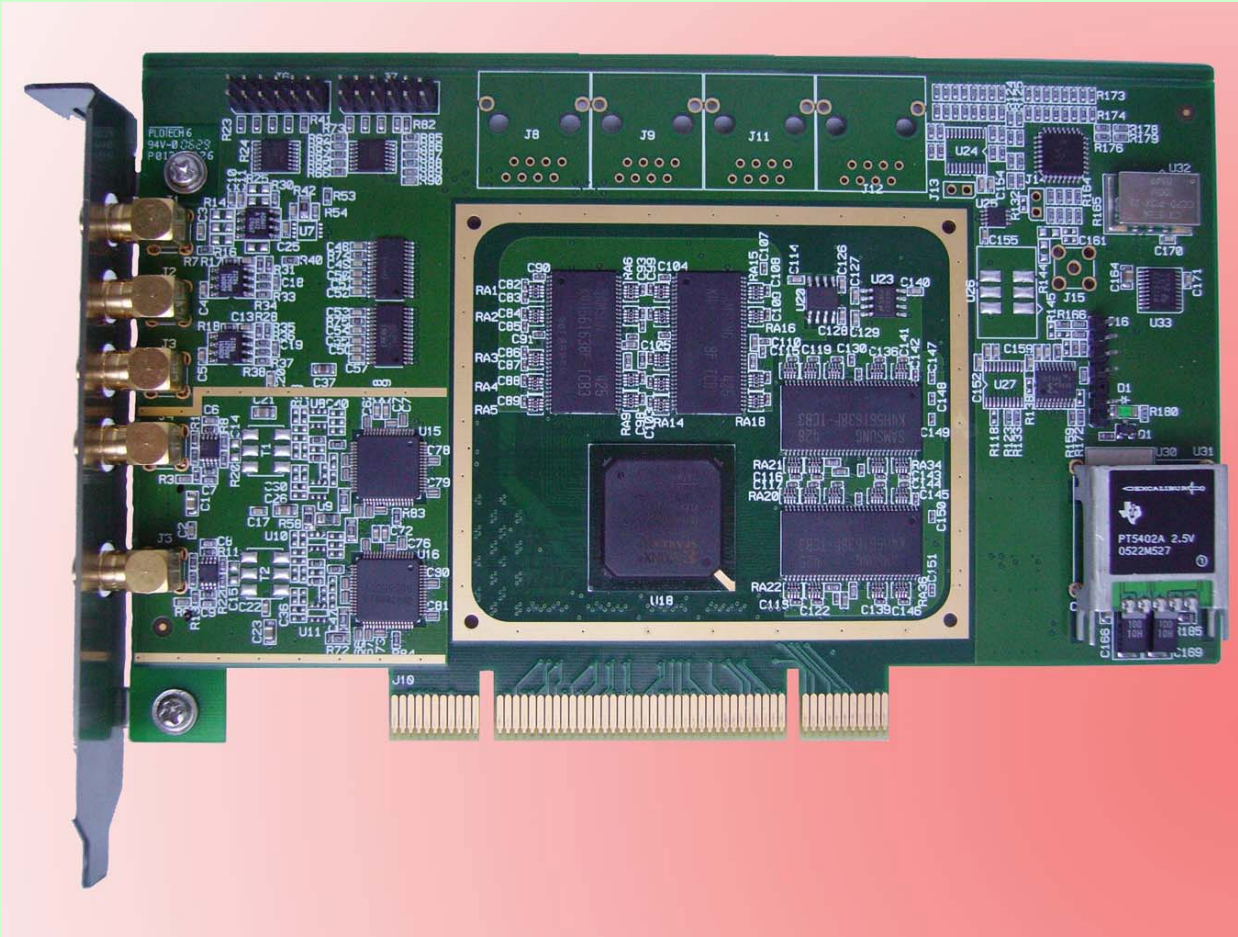
ADC-3U-4-01



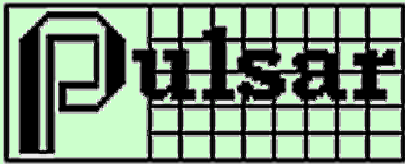
- 8 channels ADC
- 12 bit
- 50 Msps
- CompactPCI 3U
- DMA
- 16M per channel
- Programmable DSP



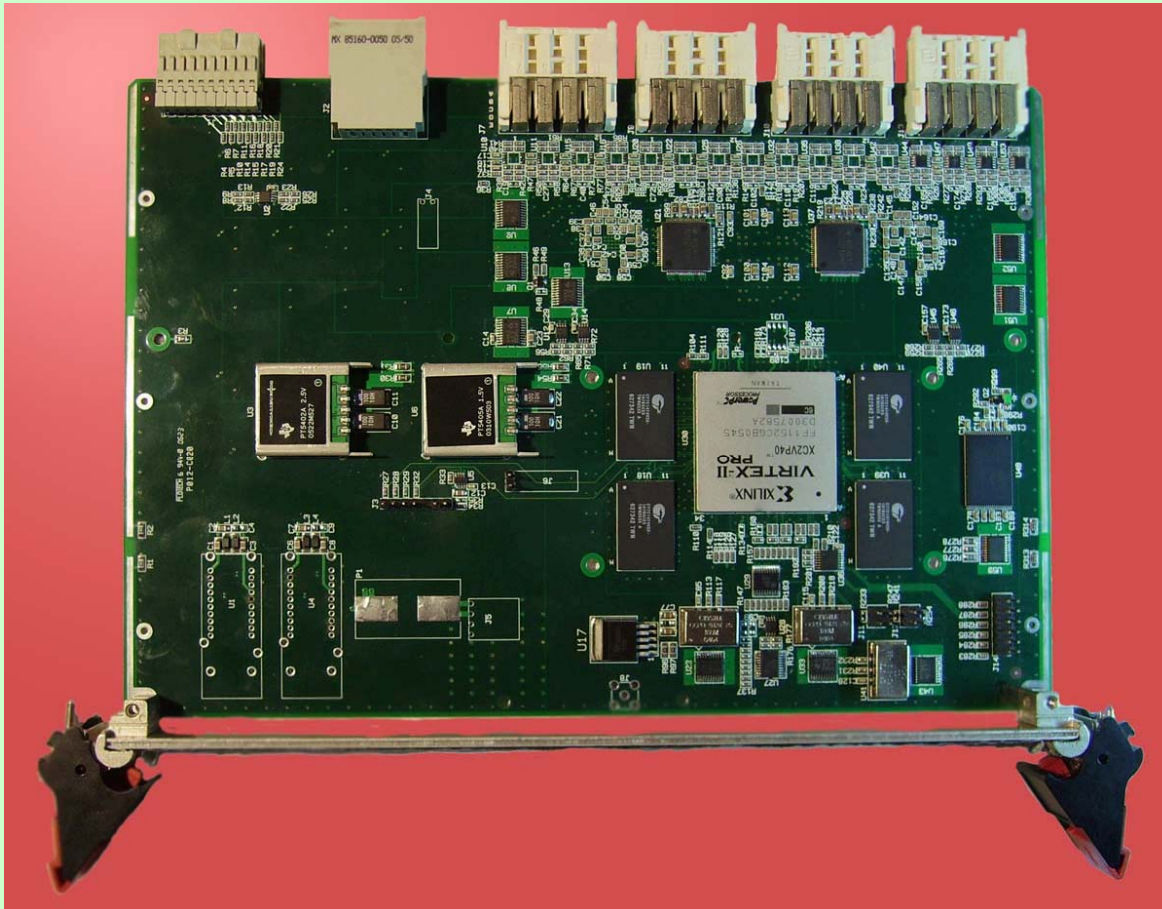
ADC125AS3



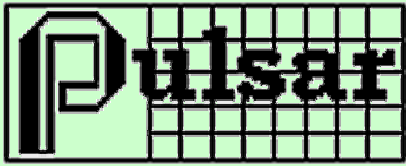
- 2 channels ADC
- 2 channels DAC
- 14 bit
- 125 Msps
- PCI32/33
- DMA
- 16M per channel
- Programmable DSP



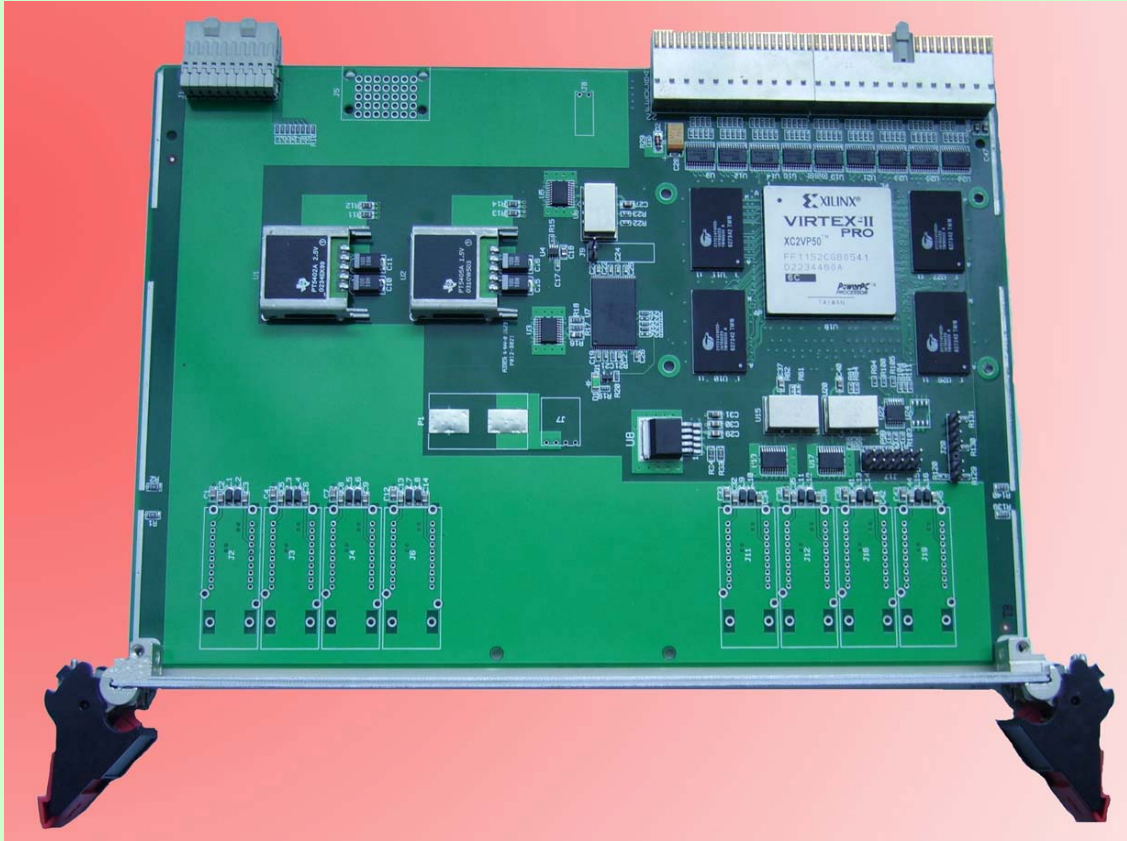
ADC32



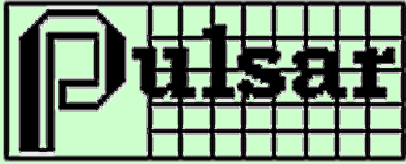
- 32 channels ADC
- 12 bit
- 50 Msps
- CompactPCI 6U size
- 2 channels 2 Gbps
- 32MB
- 5 million logic gate
- Programmable DSP



Special DSP Processor



- 8 wired channels 2 Gbps
- 8 optical channels 2 Gbps
- CompactPCI64/33 6U
- DMA
- 32MB
- 5 million logic gate
- Programmable DSP

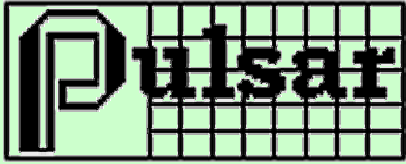


Design technology

15 year'

experience in programmable logic

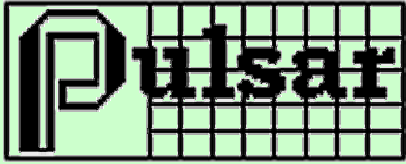
XILINX



Design technology

5 year'

experience in VHDL

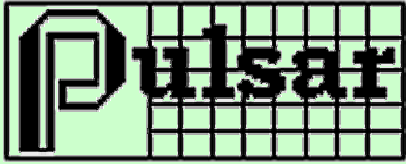


Design technology

3 year'

experience in teaching VHDL

Over 300 people visited our courses

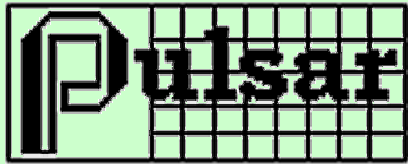


Design technology

1 year

experience in teaching DSP design

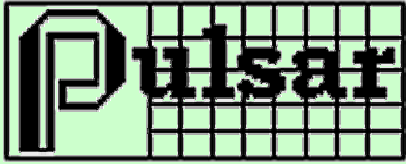
flow with Xilinx FPGA



Design technology

9 years

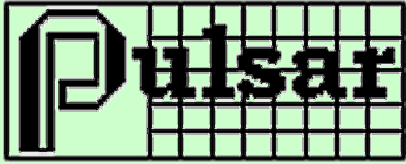
experience in DSP design



Digital Signal Processing in Hardware

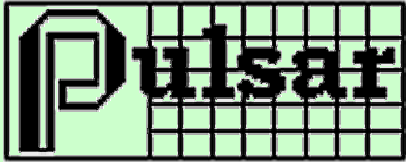
Advantages of DSP in FPGA:

- High performance
- Parallel processing
 - Support any level of parallelism
 - Optimal performance/cost tradeoff
- Flexible architecture
 - Distributed DSP resources



Digital Signal Processing in Hardware

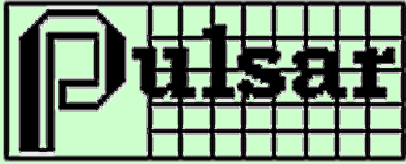
- Filtration
 - FIR
 - IIR
- Fourier transformation
- Wavelet transformation
- Correlation processing



Development
technologies

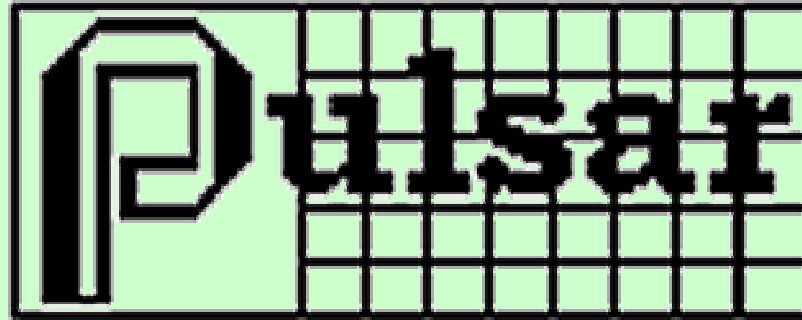
System C

for modeling and design hardware



New projects

- 2-channel ADC/ 2-channel DAC 14-bit 125 Msps in 3U Compact PCI Express x8 format
- 2-channel ADC/ 2-channel DAC 14-bit 125 Msps in PCI Express x1 format
- 256-channel ADC system 12-bit 50 Msps in 6U Compact PCI Express x8 format



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www.pulsar.org.ua