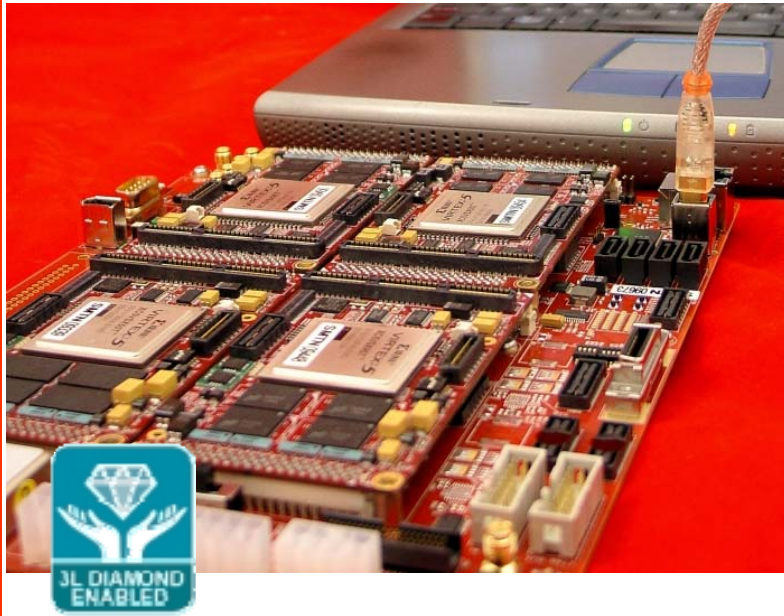


RASS

SUNDANCE

Reconfigurable, Accelerating, Scalable



- Four Xilinx **FPGA** accelerator nodes
- Virtex-5 **LXT** or **SXT** FPGA devices
- Up to 8GB **DDR2** SDRAM
- **550MHz** clock technology
- **Standalone** with **USB**, **Ethernet**...
- **Two** compute **RASS** per **slot-1U**

Overview >>>>

The Reconfigurable, Accelerating, Scalable, Supercomputing (RASS) solution offers a modular FPGA system architecture based on multiple Xilinx Virtex-5 nodes.

To meet industry demand for extreme parallel processing, RASS uses the latest 25x18-bit XtremeDSP48E slices capable to deliver up to 2+TMAC/s.

Multiple FPGA nodes can be connected via the Rocket-IO Serial Links and the S-Link to sustain the highest data transfer rates between all the FPGA accelerator nodes.

RASS is a platform adaptable to a variety of communication interfaces: USB, Gigabit Ethernet, SATA, FireWire, RS-485, RS-232 and LVDS I/O pairs. A complementary Xilinx Virtex-4 FX60 FPGA includes two PowerPC controller cores, leaving the main Virtex-5 nodes free for coprocessor acceleration.

Features

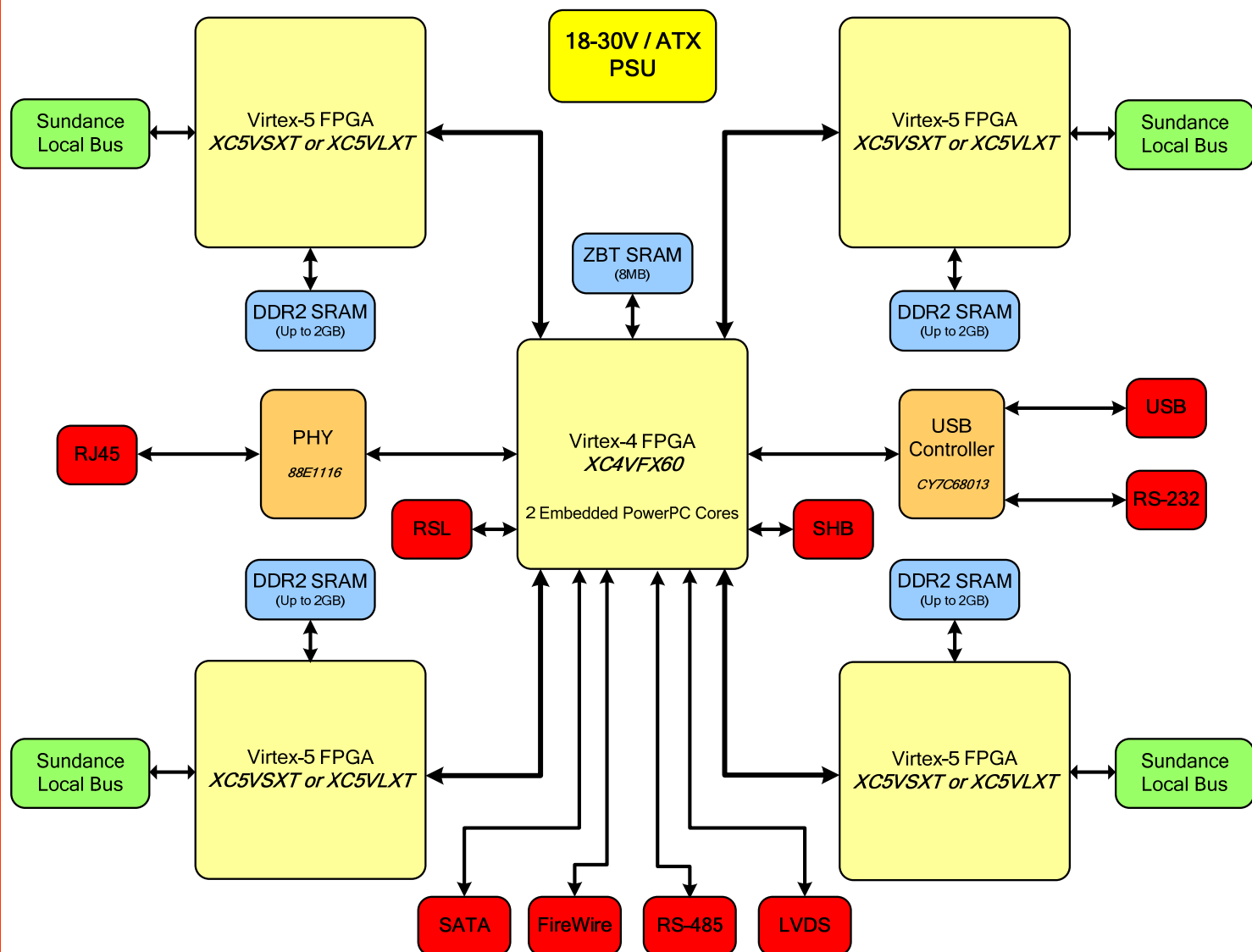
- Fastest Xilinx Virtex™-5 SX50T FPGA
- Up to 2 banks 1GB DDR2 SDRAM (64-bit) per FPGA
- Advanced DSP48E slices
- Rocket-IO GTP transceivers
- USB interface to HOST computer
- Supported by 3L Diamond FPGA tools

Applications

- Parallel Computing Research
- Accelerated DSP Simulation
- Hardware-in-the-loop testing
- Supercomputing system architecture

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Functional block diagram



Ordering information

- RASS-SX95T:** Four XC5VSX95T FPGA devices with 2GB DDR2 SDRAM and 512Mbit Flash each
- RASS-SX50T:** Four XC5VSX50T FPGA devices with 1GB DDR2 SDRAM and 512Mbit Flash each
- RASS-LX50T:** Four XC5VLX50T FPGA devices with 1GB DDR2 SDRAM and 512Mbit Flash each
- RASS-LX110T:** Four XC5VLX110T FPGA devices with 2GB DDR2 SDRAM and 512Mbit Flash each

Optional: Digital signal processing FPGA IP Cores from Sundance and approved partners

Contact information



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