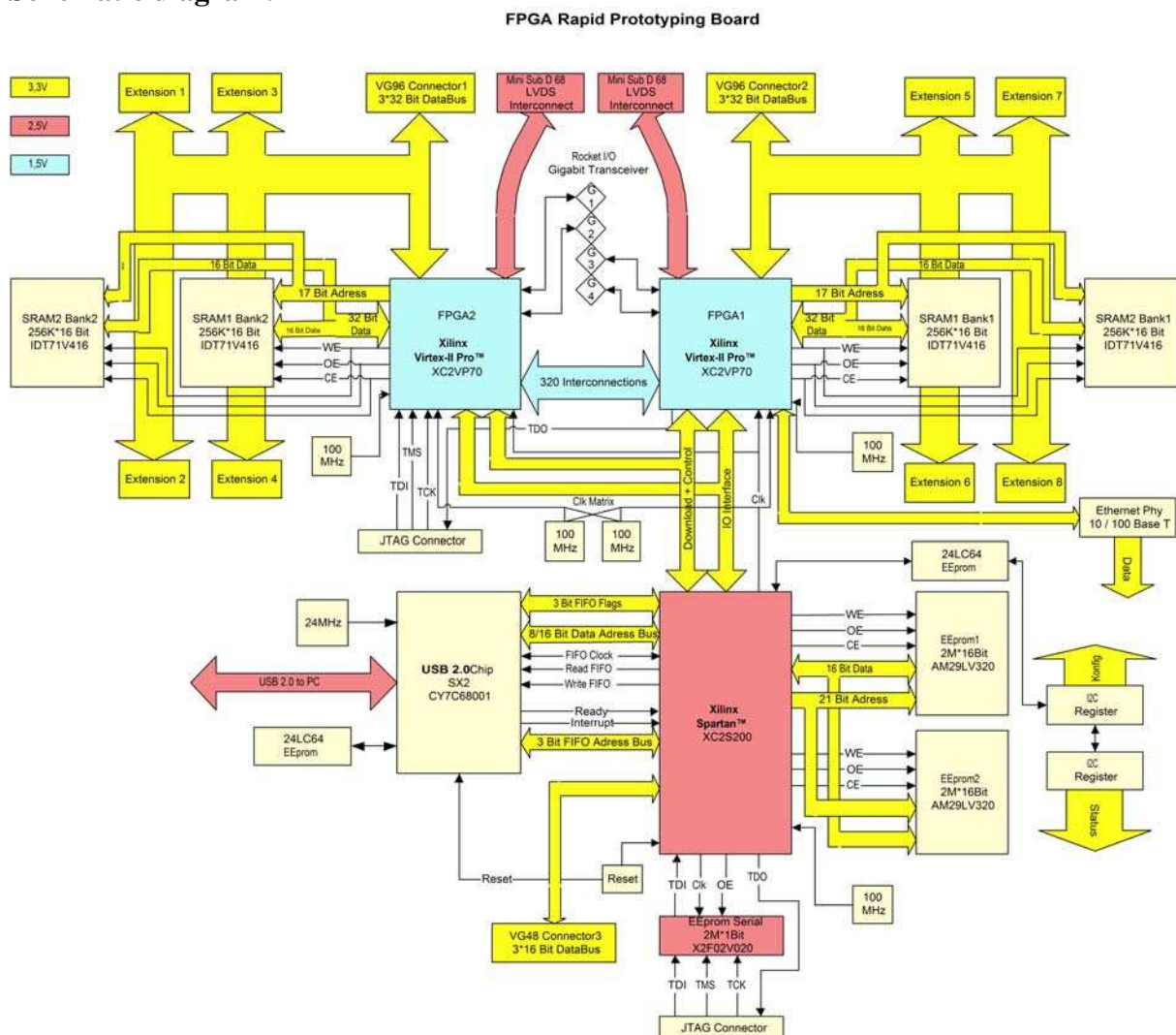


## Overview Rapid Prototyping Board Virtex II Pro „FFP Basic“

Modern communication systems need more and more complex and flexible hardware to develop a prototype device in an acceptable time.

Now a new FPGA board containing two *Xilinx Virtex II Pro* chips is available. These devices are belonging to the most powerful on the market. The new hardware platform contains several different connections to fulfil easy and fast communication. FPGA program code can easily be stored in flash memory on board. Download time is short using an USB 2.0 interface. The board can be configured to boot up and makes it easy to show demonstrations without need of external components. Only one external power supply voltage of 3,3V is necessary. Expanding the capabilities of the basic board is possible by using up to four extensions slots for daughter boards. IAF provides you with appropriate solutions. Actually an A/D D/A board, an I/Q-modulation/demodulation board, and a measurement adaptor board are available. A DSP board kit, a DRAM extension, and a Gigabit Ethernet adapter are under construction.

### Schematic diagram:



## System overview:

### Components

- two Xilinx Virtex II Pro XC2VP70 or XC2VP100 devices with 320 interconnections
- 1 Xilinx Spartan XC2S200
- 1 flash memory 64 Mbit for FPGA code programmable by USB interface
- 4 times 256k\*16 Bit SRAM 10 ns access

### Connectors

- 2 times VG 96 connector
- 1 VG 48 connector
- 2 Harting 68 signal connector for LVDS
- 8 extension slots 68 signals for 4 daughter boards dimensions 2 times 126 mm \* 54 mm and 2 times 90 mm\* 54 mm
- 16 SMA jacks for 4 Gigabit Transceiver I/Os

### Features

- USB 2.0 interface
- Ethernet 10 / 100 Base T interface
- JTAG interface for programming and debugging of FPGAs
- I<sup>2</sup>C state register
- I<sup>2</sup>C configuration register
- I<sup>2</sup>C state signaling with 8 LED
- Manual configuration switch
- 3,3 V external power supply

### Software features

- Download FPGA program into chip or into flash
- Data exchange between PC and FPGA using USB interface
- Configurable mode (auto load FPGA, manual download, data exchange)
- Program I<sup>2</sup>C configuration register

Mechanical dimensions: 220mm \* 234mm (6HE)

### Top View:



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