The RC250 Desktop Platform is ideally suited to the prototyping and development of high performance SOPC designs using FPGA logic or combined with Nios-II processors. The RC250 features dual Gigabit Ethernet and comprehensive video support to enable the evaluation and development of high-throughput multimedia and networked data applications. Fitted with an Altera Stratix-II FPGA, the RC250 is available with a complete suite of algorithm implementation tools, IP and system level APIs.

### HARDWARE FEATURES
Summary of the RC250 hardware features:

**FPGA**
- Altera Stratix-II EP2S90

**MEMORY**
- 4 banks x 1M x 36bits pipelined ZBT SRAM providing a total of 16Mbytes
- 1 bank x 16M x 32bits SDRAM
- 2 x SDcard FLASH sockets

**COMMS**
- Dual Gigabit Ethernet MAC/PHY with 10/100/1000baseT sockets
- USB 2.0
- RS232 port
- PS/2 Keyboard and Mouse ports
- 4 momentary contact switches
- 8 DIL switches
- 10 position rotary switch
- JTAG/Byteblaster connector

**VIDEO**
- DVI In & Out
- Composite In & Out
- S-Video In & Out
- VGA out
- Dual CMOS Cameras1

**ANALOGUE AND AUDIO**
- AC97 compatible Audio
- Microphone in
- Line in (Stereo)
- Line/headphone out (stereo)
- SPDIF Digital audio

**DISPLAY**
- 1024x768 8.1” TFT flat panel display and touch screen1
- 9 user-programmable LEDs

**EXPANSION**
- 50 pin expansion header including:
  - 33 general I/O pins (layout compatible with ATA UDMA-4 or higher)
  - 3 power pins (+12V, +5V, +3.3V)
  - 2 clock pins

**MICRO CONTROLLER**
- USB port management
- FPGA configuration/reconfiguration
- SDcard management
PACKAGE AND OPTIONS

PACKAGE

- Universal 110/240V power supply
- Pre-programmed SD card including:
  - Demos
  - Test programs
- Perspex top and bottom covers
- Hard carrycase, USB cable

SOFTWARE

- RC250 Platform Support Library
- API’s for platform abstraction and Nios-II soft-core processor integration
- FTU bit file transfer utility (Windows 2000/XP)

SOFTWARE OPTIONS

- PixelStreams Video Processing Library
- DK Design Suite
- Off-the-shelf kit solutions are available with Agility software and Altera Quartus tool suite.

HARDWARE OPTIONS

The RC250 is available in Professional or Expert versions. See Hardware Features list for details.

LIST OF DEVICES

- FPGA: Altera Stratix-II EP2S90
- SRAM: Alliance Semiconductor AS7C33512
- SDRAM: Samsung K4S561632E
- Ethernet PHY: Marvell 88E1111
- Ethernet MAC: Intel IXP1104
- Video Input Processor: Philips SAA7113H
- High Speed Video DAC: Analog Devices ADV7123
- DVI Transmitter/Receiver: TI TFP410 / TFP403
- RGB-NTSC/PAL Encoder: Analog Devices AD725
- PLL Clock Generator: Serial-Programmable Flash-Programmable Cypress CY22393
- Logic Audio Codec Crystal: Cirrus CS4202-JQ
- Touch Screen Controller: TI TSC2200

ORDERING INFORMATION

Contact agility_support@mentor.com for availability and pricing. Please note that specifications are subject to change without notice.

* Requires the DK Design Suite
1 RC250 Expert only