

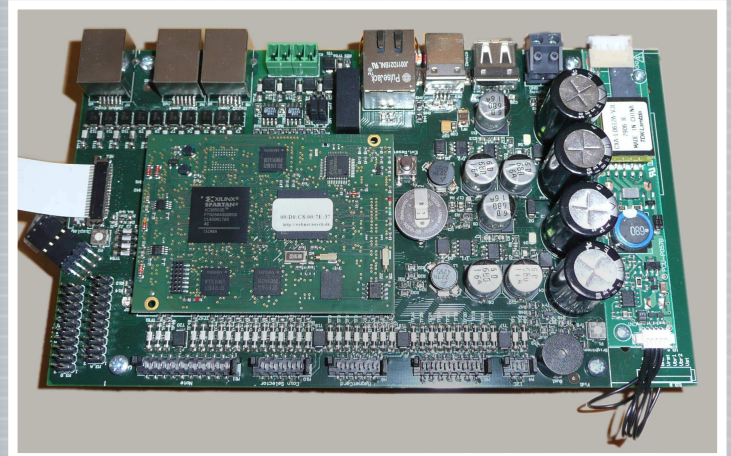
HM20 Starter Kit

ARM9 with Win CE/Linux and FPGA Co-processor

HM20 Starter Kit

The HM20 Starter-kit is a very strong package for a quick start on working with one of the strongest modules on the market today.

- *HM20 Processor module with 200MHz ARM9 computer with up to 32MB FLASH, 256MB SDRAM, Ethernet 10/100, USB 2.0, etc. 200MHz FPGA with up to 256MB SDRAM and 64 parallel 100MHz GPIOs.*
- *¼ VGA Display with touch screen. Kits can be delivered without display.*
- *A 2 day starter course included in the package to get you and your group off to a quick start.*



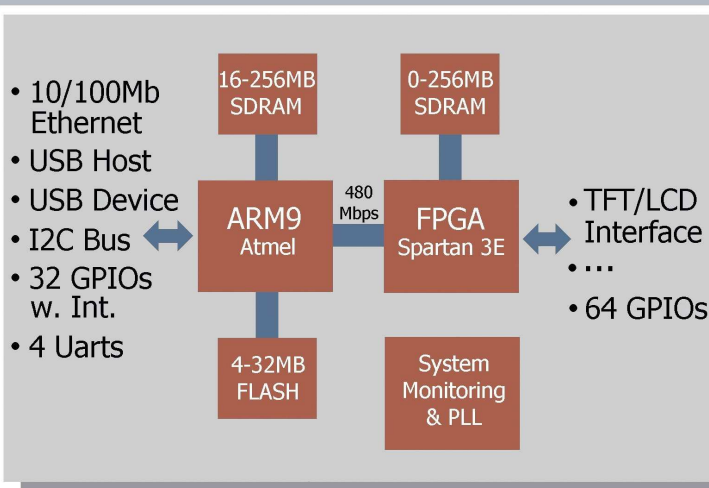
Serial and Parallel Computing

The ARM9 processor operating system is a powerful embedded computer for man-machine interfaces and machine-machine network communication and surveillance.

The processor runs the Windows Embedded CE or Linux operating systems.

The programmable FPGA is a true real-time data processor and may serve many purposes: DSP, flexible display interface, high-speed parallel I/O control, custom interface gateway etc.

The μ Controller serves as boot monitor, power watchdog with external monitoring and early warning, temperature, and reset logging.



Fast way from idea to product

The starter kit is very suitable for fast prototyping, and a fast way to production as software development can proceed during the development of an customized I/O board. Both memory and FPGA can be scaled to fit performance and cost requirements.

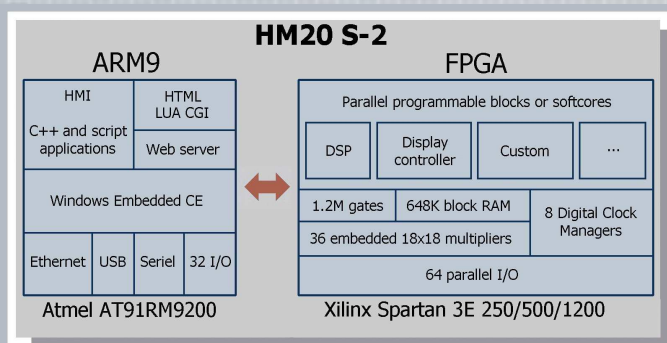
For more information please contact Prevas :

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Numerous Solutions

As a starting point for the final product, the combination of an ARM9 processor and an FPGA in a single embedded component can be used in various applications such as:

- A PLC alternative with 64 parallel programmable 100 MHz IOs, 1280*1024 LCD touch display. standard and customized interfaces (RS232/485, CAN, etc.), and system management and software updates over Ethernet.
- Digital signal processing system for vision systems, advanced control systems, multimedia streaming, and IP calls processing, etc. A running system can be reconfigured with new DSP algorithms over network, through an Internet



Please do not hesitate to contact Prevas for a discussion of application possibilities if you think the module is relevant in your next design.

HM20 Starter kit specifications

- 200MHz ARM9 with up to 128MB SDRAM and 32 MB FLASH memory.
- SPARTAN 3E 250/500/1200 FPGA with up to 128 MB RAM for real-time data processing and flexible display support.
- 480 Mbps bus connecting ARM9 and FPGA.
- 10/100Mbit/s Ethernet.
- Complete Windows Embedded CE 5.0
- Microsoft development tools.
- USB 2.0 host and device interfaces.
- I2C bus.
- 4 UARTS with TTL signal levels
- Real Time Clock.
- Programmable PLL clocks (up to 166MHz).
- CPU GPIOs with interrupt capability.
- FPGA GPIOs.
- Flexible LCD interface through FPGA - 300MB/s video-memory bandwidth.
- System management μ Controller - watchdog, temperature, reset logging.
- Power Supply 12V 8W incl. display.
- Size module: 75 x 55 mm, kit:
- Serial ports: RS 485, debug consol port
- SD Card optional

Getting started with the HM20 Kit

The starter-kit course is a two-day fast introduction to the kit and the module. The course is tailored to the choice of OS system – Linux or Win CE.

Day 1 contains :

- Basic description
- Connection and start-up modul
- Development of the first "Hello World" application.

Day 2: Based on the customers need, we discuss or develop a start demo, the application structure or brainstorms the project.

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