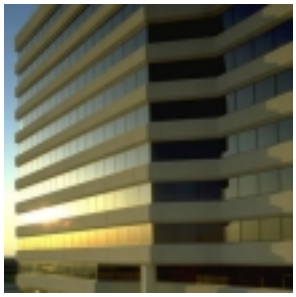
OEM ANSI/EIA-709 Node

The OEM ANSI/EIA-709 Node is a Embedded Linux (or Embedded JAVA) solution, developed to realize customized ANSI/EIA-709 communication nodes for versatile applications. Examples are ethernet gateways, gateways to different field bus systems, touch-panels or bus monitoring and debugging products.

The system is based on MOTOROLA'S 32-Bit COLDFIRE RISC-Controller, a circuit with a very good price/performance ratio. The bit generation and bit sampling is realized by a reconfigurable FPGA with integrated FIFO buffer, generating an interrupt request for the processor when the buffer becomes full. The protocol software offers an easy network-variable oriented programming interface as well as debugging- and monitoring features like Hex-Dump and Promicuous Mode. Furthermore, it implements unicast and multicast communication, but no configuration management support.

Using Embedded Linux and/or JControl/OS as operating system, very robust system software becomes possible. Application software may be developed in „C" or JAVA. Free software development tools are offered to support the software development, including a Project Manager, Picture Editor, Font Editor or Melody Editor. Our configurable Simulator allows to examine the usability and system behaviour of the device before the hardware is finished.



Technical Data

Hardware

- Motorola ColdFIRE family (low-cost 32-Bit controllers, e.g. MCF5206e, MCF5272)
- 2MB - 4MB DRAM
- 1MB - 2MB FLASH
- FPGA based ANSI/EIA-709 communication node
- FPGA configuration by software after power-up
- Allocates 140 CLBs (XILINX Spartan-I family)
- Optional 10/100 BaseT ethernet interface
- RS232
- BDM/JTAG (in-circuit flash programming, in circuit testing etc.)
- I²C

Software

- EmbeddedLinux, JControl/OS
- User Library offers protocol stack functionality
- Network-Variable oriented programming interface
- Dynamic programming of node address
- Debugging features like Hex-Dump and Promiscuous Mode
- Unicast & Multicast communication
- JAVA programming support
- Various additional device drivers available
- Bootloader with Power-On-Self-Test (POST)

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