

OEM Touch Panel

Touch Panels provide very intuitive user interfaces - „*What You Touch Is What You Get*“. This ensures high usability even for complex systems, e.g. for home automation terminals, industrial control panels or mobile devices.



Our OEM Touch Panel platform is a cost-optimized solution for customized touch panel products. It is based on MOTOROLA'S 32-Bit COLD FIRE RISC-Controller, a circuit with a very good price/performance ratio. Several on-chip peripheral components facilitate highly integrated and extreme compact systems with low power consumption. The LCD is controlled by a reconfigurable FPGA (XILINX Spartan-II), reading the pixel data by DMA (Direct Memory Access) from the DRAM and transferring it directly to the display. This avoids the need for a separate graphical display controller with external memory. Thanks to the flexibility of the FPGA, different kinds of display technologies and resolutions can be supported; e.g. STN, TFT, 128x128 pixels black/white or 320x240 color.

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. Additionally, a very compact JAVA-based GUI library is provided (VOLE), suitable for GUIs with corporate design requirements. Free software development tools are available 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.

Project-specific applications (e.g. customized home automation applications) are described in XML, specifying the GUI components and the bus functionalities. Our XML2CLASS compiler translates the configuration file to an executable format.

Technical Data

Hardware

- Motorola ColdFIRE family (low-cost 32-Bit controllers, e.g. MCF5206e, MCF5272)
- 4MB - 16MB DRAM
- 1MB - 4MB FLASH
- DMA-based LCD control with FPGA
- Optional 10/100 BaseT ethernet interface
- RS232
- CAN, EIB, PL132, LON
- BDM/JTAG (in-circuit flash programming, in circuit testing etc.)
- I²C

Software

- EmbeddedLinux, JControl/OS
- Connectivity
 - CAN
 - EIB (FT1.2)
 - Konnex PL132
 - LON, ...
- Touch panel device driver
- JAVA programming support
- Compact graphical user interface library
- GUI configuration by XML
- Bootloader with Power-On-Self-Test (POST)
- WebServer with JAVA-interface for automatic generation of HTML pages



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