Technologic Systems
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TS-TPC-7390 Touch Panel Computer

The TS-TPC-7390 is an industrial-grade WVGA touch screen computer with audio codec and speaker. Utilizing a low-power ARM9 CPU, it requires no fans or heat sinks. Reliability is enhanced through entirely solid-state operation with no moving parts. The rugged aluminum support elegantly frames the 7” TFT LCD, making it an ideal solution for mounting on a wall or cabinet. The computer unit is mounted to the back of the panel, providing access to a wide variety of connectors including 2 10/100BASE-T Ethernet ports, 2 full-speed USB ports, DIO, and serial ports. The unit runs Linux Kernel 2.6 with Debian Etch out-of-the-box and is suitable for a wide range of HMI-type and GUI applications.

The TS-7390 SBC

The TS-7390 Single Board Computer powers the TS-TPC-7390 Touch Panel Computer. The TS-7390 features a multipurpose ARM9 CPU. It allows development of multifunction embedded applications through its multiple peripheral interfaces, which include onboard RAM, NAND Flash, dual 10/100 Ethernet ports, dual USB 2.0 host, serial ports, an SD card socket, A/D channels, digital I/O lines, temperature sensor, real-time clock, audio codec and speaker, video frame buffer, touch screen, LCD video interfaces, etc.

The default load for the 5K LUT Lattice XP2 FPGA provides additional peripherals, such as an SD card socket, extra serial ports, and an 800 x 480 Color TFT-LCD video core. The TS-7390 computer is extremely rugged and reliable. Temperature operation is fanless, and the range is industrial standard at lower CPU speeds. Power input range is flexible from 5 VDC to 28 VDC. The power supply for the LCD and the LCD backlight are controlled via software.

Linux 2.6, Debian, and Eclipse IDE support

The TS-7390 runs Linux 2.6 and Debian by default out of 512 MB onboard Flash or an SD card. Bootup time to a Linux shell-prompt is about 1 second. The full-featured Debian Linux (version Etch) distribution includes a complete GNU C/C++ embedded development environment installed. Custom Linux GUI applications can be developed using Xorg Xlib, DirectFB, GTK+, QEmbedded or Java libraries. More GUI libraries for Linux can be customized and installed.

For more information, contact: info@embeddedARM.com

FEATURES

- Powered by TS-7390 engine
- 200 MHz ARM9 CPU (faster CPUs possible)
- Up to 128 MB SDRAM
- 512 MB NAND Flash with Debian Linux
- User-programmable 5K LUT Lattice XP2 FPGA
- Expansion bus for daughtercards
- Touch screen and audio speaker
- 800 x 480 TFT-LCD core with video out
- 8 MB dedicated frame buffer with video core
- 2 10/100 Ethernet ports
- 2 USB 2.0 (12 Mbps maximum)
- 1 SD card slot (up to 6 MBps DMA)
- 4 RS-232, 2 TTL COM ports
- 40-pin header with ADC, SPI, I2C, DIO
- Industrial quality design
- Boots Linux 2.6 in about 1 second
- Unbreakable, boots from SD or NAND
- Runs Windows GUI applications
- Supports Xorg, GTK+, DirectFB, Java, etc.
- Eclipse for Windows out-of-the-box
- Visit our website for more TPC products