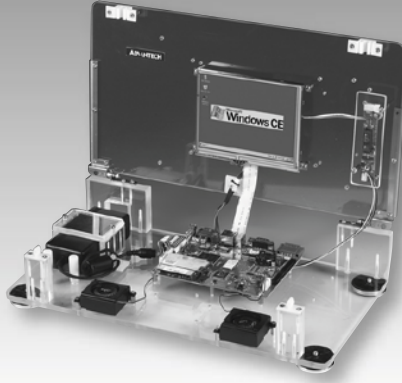


PCM-7221-0K0CE1E

OS-ready XScale®
PXA270 + Windows® CE 5.0
Evaluation Kit

Project Based



Features

- The kit is designed for potential DTOS customer
- Xscale® PXA270 CPU w/ Microsoft Windows® CE 5.0 Evaluation kit
- 5.6" TFT LCD w/ T/S
- Rich I/O I/F: LAN, USB, RS-232, RS-485, hotkey, DIO, audio, CF, SD
- Complete S/W support package with SDK for easy application development
- Supports Adobe® Flash® Player 7.0 & Java Virtual Machine by project base

Introduction

Evaluation kit based on XScale/Windows CE technology makes DTOS projects easy, simple and risk-free

The PCM-7221 evaluation kit integrates certified functional peripherals using Windows® CE 5.0 for functional and risk-free project development and implementation. The evaluation kit includes LCD, T/S, power adaptor, testing fixture, related cables and software support CD.

Testing Kit including H/W testing tools, S/W testing utility and documentation

- H/W testing tools: RS-232 loop-back testing tool, null MODEM cable, JTAG cable, and expansion connector cables.
- S/W testing utility: Advantech-developed a testing utility for system function and I/O performance tests. The test process is implemented through the S/W testing utility and H/W testing tools.
- Documentation: Advantech RISC PXA270 Platform Testing Method. This explains how to implement a test process.

Software Development Tools

A complete package of software development tools is provided for customers to evaluate our Design-in Kit.

- SDK: for customer target application development
- Reference Image: for the selected model of Design-in Kit
- Upgrade Utility: for upgrading the boot logo, image & bootloader
- Platform Setting: for system information check, T/S calibration, display control, watchdog configuration, DIO configuration, and registry saving

Design-in Zone Membership

Advantech has established a dedicated web portal called Design-in Zone to assist customer development by providing efficient support. See <http://risc-designin.advantech.com.tw> for more details. The design-in zone enables customers to get up-to-date technical support documentation.

Specification

S/W

- **O.S.** Windows CE 5.0 English professional ver.
- **GUI Firmware** Adobe Flash Player 7.0 & Java Virtual Machine by project base

Kernel

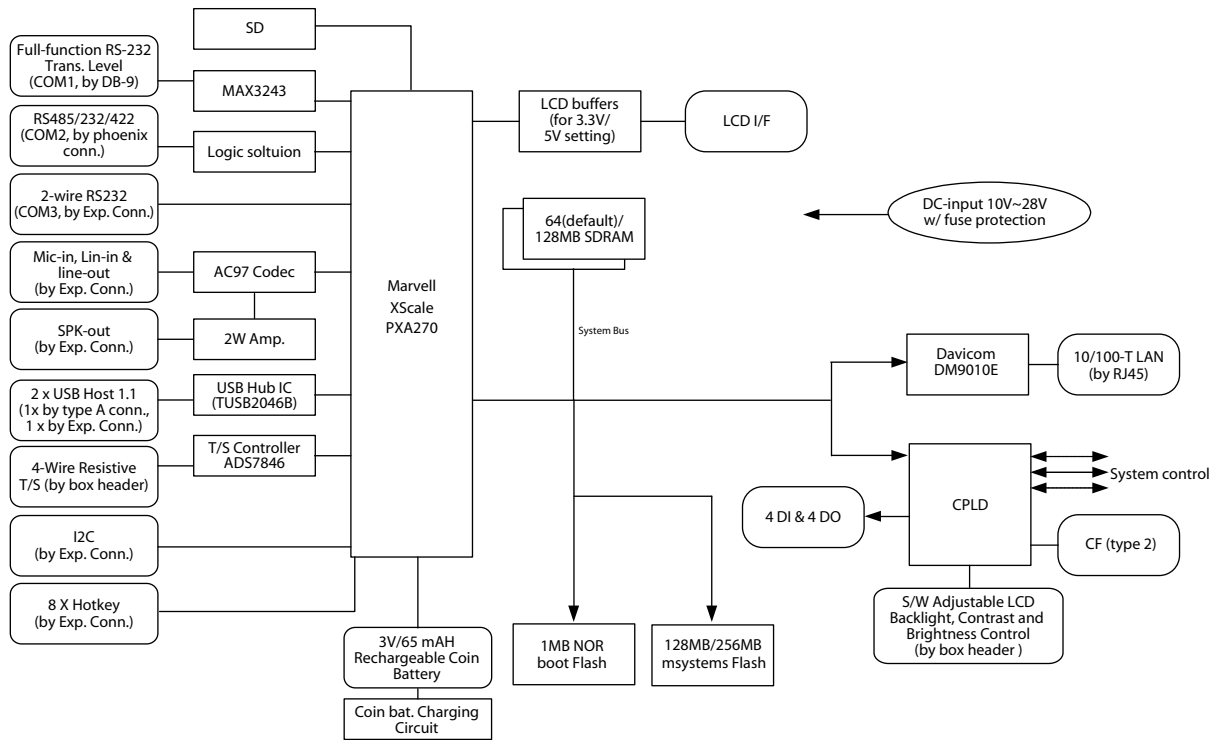
- **CPU** Marvell® PXA270 312 MHz (520 MHz is optional)
- **SDRAM** 64 MB
- **Flash** 128 MB (0 MB is optional; the system can boot from a CF or SD memory card)
- **Graphic Chip** PXA270 internal 18-bit LCD controller
- **RTC** Yes (backup by 65 mAh rechargeable coin battery)
- **Watchdog** PXA270 internal
- **JTAG** Yes (pin header)

- **Power Management** Normal & Idle mode
- Idle mode: turn off the LCD backlight only.
Wake up by event trigger (T/S, USB mouse)
- **Reset** S/W reset

I/O

- **COM** COM1: FF transceiver level RS-232 (TTL is optional) by DB-9 conn. COM2: RS-485 (default)/422/232, S/W configurable by phoenix conn. COM3: 2-wire transceiver level RS-232 (TTL is optional) by expansion conn.
- **LAN** 1 x 10/100Base-T (Davicom DM9010) by RJ45
- **USB** 2 x USB 1.1 host ports. USB#1 by type A, USB#2 by expansion conn.
- **SD/MMC** 1 x standard slot (supports memory and SDIO mode)
- **CF** 1 x type II slot (supports memory and IO mode)
- **DI/DO** 4 x TTL-level DI & 4 x TTL level DO by expansion conn.

Board Block Diagram



- **Hotkey** 8 x hotkey I/Fs (can be configured as GPIO) by expansion conn.
- **I²C** Yes (by expansion connector)
- **SPI** Reserved (by expansion connector)
- **Expansion conn.** 50-pin box header with the following functions: COM3, hotkey, DIO, Audio, I2C, SPI, USB host & power pin

Multimedia

- **LCD** 5.6" TFT 320 x 234 500 nits (Dataimage FG050605DNCWAGZ1)
- **T/S** 5.6" 4-wire resistive type
- **Inverter** Supports LCD on/off and brightness control by S/W setting
- **Speaker** 2 x 2 watt speakers
- **Audio** Line-in, Line-out & Mic-in by expansion conn.

Power

- **Power Adaptor** 100 ~ 240 V AC input w/ 19 V DC-output
- **SBC DC-input** 10 V ~ 28 V
- **Coin Battery** Rechargeable li-ion 3 V 65 mAh coin-battery for RTC
- **Power Switch** Slide type

Mechanical

- **Chassis size** 383 mm x 210 mm x 88 mm
- **SBC size** 102 mm x 136 mm

Packing List

- **PCM-7221 Evaluation Kit** Includes PCM-7221 SBC, 5.6" 320 x 234 TFT LCD, 4-wire T/S, inverter, AC/DC power adaptor, 2 x 2 watt speakers, plastic chassis & related cables
- **Testing Tool** Includes JTAG cable, RS-232 loop-back fixture, expansion conn. cable, male phoenix conn.
- **Support CD** Includes datasheet, user manual, upgrade utility, testing utility, SDK, and design-in zone guide
- **License** Microsoft Windows CE end-user license agreement

Ordering Information

Part No.	Description
PCM-7221-0K0CE1E	Evaluation kit for Marvell XScale PXA270 w/Windows CE 5.0, 64 MB SDRAM 128 MB flash, 5.6" 320 x 234 LCD w/ T/S