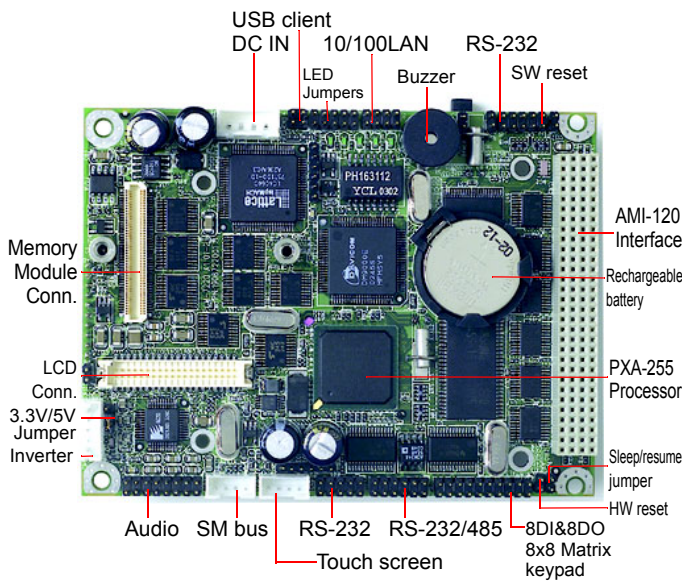


# PCM-7220 Series

RISC 2.5" Ready-to-Run SBC with Intel® Xscale PXA-255 CPU, Windows® CE.NET/Linux



## Features

- Platform integrates with Advantech software solution including Boot-loader, device driver, OS kernel and system utility in a preinstalled package on either flash module or CF card.
- Multiple boot options thru on-board Flash, extended memory module, or CF card
- Extended Temperature (Advantech Phoenix models) available as optional models
- Full power management for Ultra low power performance (Normal < 2.5 W/Suspend < 200 mW).
- AMI-120 interface for quick function expansion.
- SM bus interface for battery powered applications
- Evaluation kit integrating 5.7" STN QVGA panel, Touch Screen, Battery-pack, Matrix key pad is available for project feasibility evaluation

## Introduction

PCM-7220 series ARP (application ready platform) integrates Intel's RISC Xscale PXA-255 processor and Windows CE.NET or Embedded Linux solution at a 78 x 104 mm (3" x 4") compact form factor. It is designed to provide customers an high performance Xscale based level board subsystem with character of Ready-to-run, compact, but flexible in expansion to response versatile application needs.

### **Certified platform functionality offers fast, flexible CTOS (Customization To Order Service)**

The PCM-7220 is designed to offer customers a fast time to market and flexible reference platform that is fully customizable. All functionality has been certified completely and can be leveraged to customized needs for different hardware configurations and system optimization based on the customer's request.

### **Xscale base solution platform customizes your versatile needs thru AMI interface**

Based on the Intel Xscale PXA-255 processor, which is a complete 32-bit, up to 400 MHz speed SOC engine, this platform offers rich I/O interfaces and high performance. It also reserves interfaces for flexible configuration that will exceed expectations for high performance vs cost.

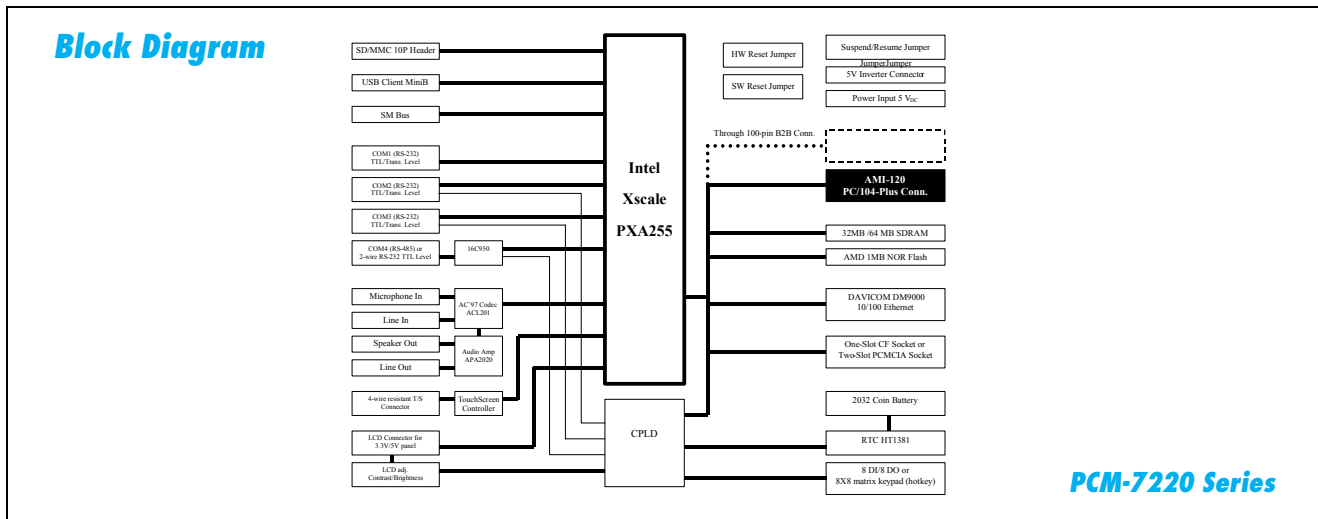
Through the unique open expansion interface AMI-120 (ARM Module Interface), this full line of AMI solution modules gives the PCM-7220 expansion functionality similar to PC/104 to x86 platforms. The AMI module interface is also open to customized solution modules as well.

## Applications

- Industrial Mobile device platform
- Distribution data management
- Touch base Human Machine Interface
- Telemetric / AVL / DBA
- Medical and Security controller Control or data entry operator interfaces

## Specifications

	PCM-7220 Series	PCM-7220S
<b>CPU- Xscale PXA-255</b>	200/300/400 MHz	400 MHz
<b>System Memory</b>	16 ~ 64 MB SDRAM	64 MB on-board
<b>Flash Memory</b>	1) 16 ~ 32 MB on flash module 2) Up to 1 GB on CF card	W/O flash module
<b>Watch Dog</b>	PXA-255 Internal	V
<b>RTC</b>	External RTC w/ battery backup	V
<b>Backup battery for RTC and system</b>	Rechargeable Lithium 3V 65 mAH	V
<b>Serial Ports</b>	Full 9-pin TTL/Transceiver	Full 9-pin Transceiver
RS-232		
COM1-COM3		
COM4	RS-485 with AFC or 2-wire RS-232 at TTL level	RS-485 with AFC
RS-485/432	RS-485 with AFC	
<b>Ethernet LAN</b>	10/100 BASE-T	10/100 BASE-T
<b>CF/PCMCIA Slot (Alternative)</b>	2x type II PCMCIA slot or 1x CF slot	1x Type II CF slot
<b>USB Client</b>	1 miniUSB B type port	V
<b>DI/DO or matrix keys</b>	8 DI/DO or 8x8 matrix keys	8 DI/DO (in default setting) & Matrix keypad as alternative
<b>LCD (TFT/STN), T/S Interface</b>	QVGA 16 bit, 4-wire resistive	QVGA STN 8 bit, 4-wire resistive
<b>AC'97 interface (16-pin header)</b>	Mic-in, line in/out, Spk out	V
<b>SM Bus Interface</b>	V	V
<b>Expansion Slot AMI-120</b>	Thru system bus (100 MHz)	V



PCM-7220 Series

## Specifications (cont.)

	PCM-7220 Series	PCM-7220S
<b>Pre-installed OS (Alternative)</b>	WinCE.NET 4.1 Linux2.4.19 kernel	X X
<b>Power Supply Interface</b>	5 V <sub>DC</sub> @1.2 A typical in 4-pin header	V
<b>Working Temperature (Extended Temperature model)</b>	0~60°C (32°~140°F) (-20/-40°~80/90° C optional)	V
<b>Operating Humidity</b>	0%~90% Relative Humidity	V
<b>Certification</b>	FCC/ CE EMI Class B	V
<b>Form factor / Weight</b>	78 x104 mm /0.1 kg (.22 lb)	V

## Packing List

- Support CD: per model of WinCE or Linux
- Windows CE end user license agreement: WinCE model only
- JTAG cable(for Linux model)
- Null modem cable(for Linux model)
- Cables sets (optional)

## Ordering Information

- ❑ **PCM-7220K-230CE/LX:** Intel PXA 255 400 MHz, 64 MB SDRAM on board, Optional Flash Module (32 MB Flash/ 0 MB SDRAM) with Win CE/Linux solution integrated
- ❑ **PCM-7220-0K0CE/LX:** PCM-7220 Evaluation Kit system based on PCM-7220K-230CE/LX
- ❑ **PCM-7220S-030CE/LX:** Intel PXA 255 400 MHz, 64 MB SDRAM on board, W/O Flash Module and Win CE/ Linux solution integrated
- ❑ **PCM-7220M-020CE/LX:** Intel PXA 255 400 MHz, 32 MB SDRAM on board, W/O Flash Module and Win CE/ Linux solution integrated

### Remarks:

- The size of flash and system memory is configurable per customer needs on a project base.
- Different system configuration based on PCM-7220 platform can be customized in project basis.
- Full AMI-120 solution modules are available to fit with PCM-7220 series. However, the combination of system functionality may need to optimize for best performance.

### Optional Items

#### Advantech's Off-the-Shelf AMI-120 Modules

- ❑ **4 COM port module**, P/N: AMI-COM-01
- ❑ **USB Hub and IDE modules**, P/N: AMI-USB-IDE-01
- ❑ **Epson LCD controller module**, P/N: AMI-LCD-E-01
- ❑ **Intel SA-1111 Companion chip module**, P/N:AMI-SA1111-01