PCM-7320 Series

RISC 2.5" Ready-to-Run SBC with CPU, Samsung S3C2410, Windows®CE .NET/Linux

10/100LAN USB Host USB client RS-232

DC IN

AMI Module

GPIO

S3C2410 Processor

Reset

SPI

Audio LCD Interface RS-232/485 Touch screen

SM bus
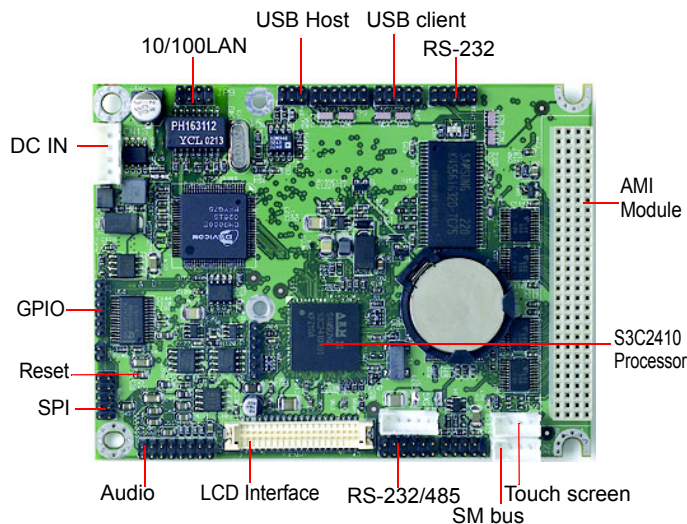
Features

- Multiple platform booting approach through onboard Flash, CF card.
- Extended Temperature (Advantech Phoenix Std) is available as optional model.
- Full power management for Ultra low power performance (Normal-<2.5 W/Suspend<200 mW).
- AMI-120 interface for function expansion in a second.
- SM bus interface for battery powered application
- Evaluation kit integrating 5.7ïSTN QVGA panel, Touch Screen, Battery pack, Matrix key pad is available for project feasibility evaluation

Introduction

The PCM-7320 series platform is an application ready board level solution integrating Samsung ARM9 S3C2410 SOC (System On Chip) base at 78 x 104mm (3" x 4") compact form factor. It was designed to provide customers a high performance, but cost effective ARM9 based board solution. Its compact, ready-to-run, system function ready, and flexibility in expansion meets all versatile embedded application needs.

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

As a customer solution reference platform, the PCM-7320 was designed to offer customers a fast time to market and flexible customization platform. All functionality has been completely certified, and leveraged to customize different hardware configurations and system optimization based on the customer's request.

Samsung ARM9 base solution offers high performance/ price ratio

The Samsung ARM9 S3C2410 SOC is a complete 32-bit, 200 MHz System On Chip Solution, which offers rich I/O interfaces at high performance, like USB, 10/100 LAN, CF, 8 x 8 matrix keypad / hot keys and 4-COMs, and a LCD interface to the PCM-7320 series. It also reserves flexible functionality configuration for customization, such as wider range LCD interface, that offers an optimal high-performance/price combination.

Through the unique open expansion interface of the AMI-120 (ARM Module Interface), the full line of AMI solution modules for the PCM-7320 act like PC/104 modules to x86 platforms, all easily enhance platform functionality. The AMI module interface is also open for customized solution modules as well.
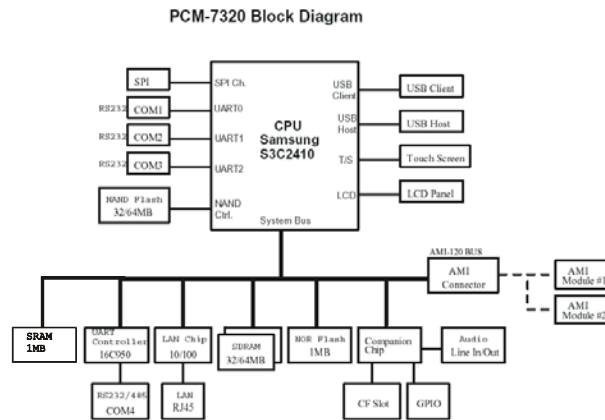
Applications

- Industrial Mobile device
- Distribution data management
- Touch base Human Machine Interface
- Telemetric / AVL / DBA
- Medical and Security controller

Specifications

	PCM-7320 Series	PCM-7320S-230CE
CPU- Samsung ARM9 S3C2410	200 MHz	200 MHz
System Memory	16~64 MB SDRAM	64MB on board
Flash Memory	1) 16/32/64/128 MB flash on board 2) 16 MB~1GB on CF card	32 MB flash on board
Watch Dog	Samsung ARM9 S3C2410 Internal	V
RTC	Samsung ARM9 S3C2410 Internal	V
Backup battery for RTC and system	Rechargeable Lithium 3V 65 mAH	V
Serial Port	COM1~COM3 RS-232	Full 9-pin TTL/Transceiver	Full 9-pin Transceiver
	COM4RS-485/232	RS-485 AFC or 2-wire RS232 at TTL level	RS-485 AFC
Ethernet LAN	10/100 BASE-T	10/100 BASE-T
CF /PCMCIA Slot (Alternative)	1x type II CF slot (bootable)	1x Type II CF slot (bootable)
USB Host	USB 1.1	V
USB Client	1 miniUSB B type port	V
GPIO or matrix keys	Alternative for 16 GPIO or 8x8 matrix keys	8 GPIO
LCD(TFT/STN), T/S Interface	QVGA 16bit, 4-wire resistant	V
Audio thru I2S interface	Mic-in, Line in/out, Spk out	V
SM Bus Interface	Thru system bus (100 MHz)	V
Expansion Slot AMI-120	V	V
Pre-installed OS(Alternative)	WinCE.NET 4.1 Linux2.4.19 kernel	V V

RISC Embedded Solutions

Note: All specifications subject to change without notice

Updated:May/26/03

Block Diagram

PCM-7320 Block Diagram

PCM-7320 Series

Specifications (cont.)

Expansion Slot AMI-120	V	V
Pre-installed OS(Alternative)	WinCE.NET 4.1	V
	Linux2.4.19 kernel	V
Power Supply Interface	5Vdc@1.2A typical in 4-pin header	V
Working Temperature(Extended Temperature model)	0~60° C (32~140° F)(-20/-40~80/90° C is in option)	V
Operating Humility	0%~90% Relative Humility	V
Certification	FCC/ CE EMI Class B	V
Form factor / Weight	78x104mm /0.08kg (0.18lb)	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)
- Cable sets (optional)

Ordering Information

- ❏ **PCM-7320K-330CE/LX:** Samsung ARM9 200MHz, 64MB SDRAM on board, 64MB Flash on board with Win CE/Linux solution integrated
- ❏ **PCM-7320-0K0CE/LX:** PCM-7320 Evaluation Kit system based on PCM-7320K-330CE/LX
- ❏ **PCM-7320S-230CE/LX:** Samsung ARM9 200MHz, 64MB SDRAM on board, 32MB Flash on board with Win CE/Linux solution integrated
- ❏ **PCM-7320M-120CE/LX:** Samsung ARM9 200MHz, 32MB SDRAM on board, 16 MB Flash on board and Win CE/ Linux solution integrated

Remarks:

- The size of flash and system memory is configurable per customer needs on a project basis.
- Different system configuration based on PCM-7320 platform can be customized in project basis.
- Full AMI-120 solution modules are available to fit with PCM-7320 series. However, the combination of system functionality may need to be optimized for best performance.

Optional Items

Advantech 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