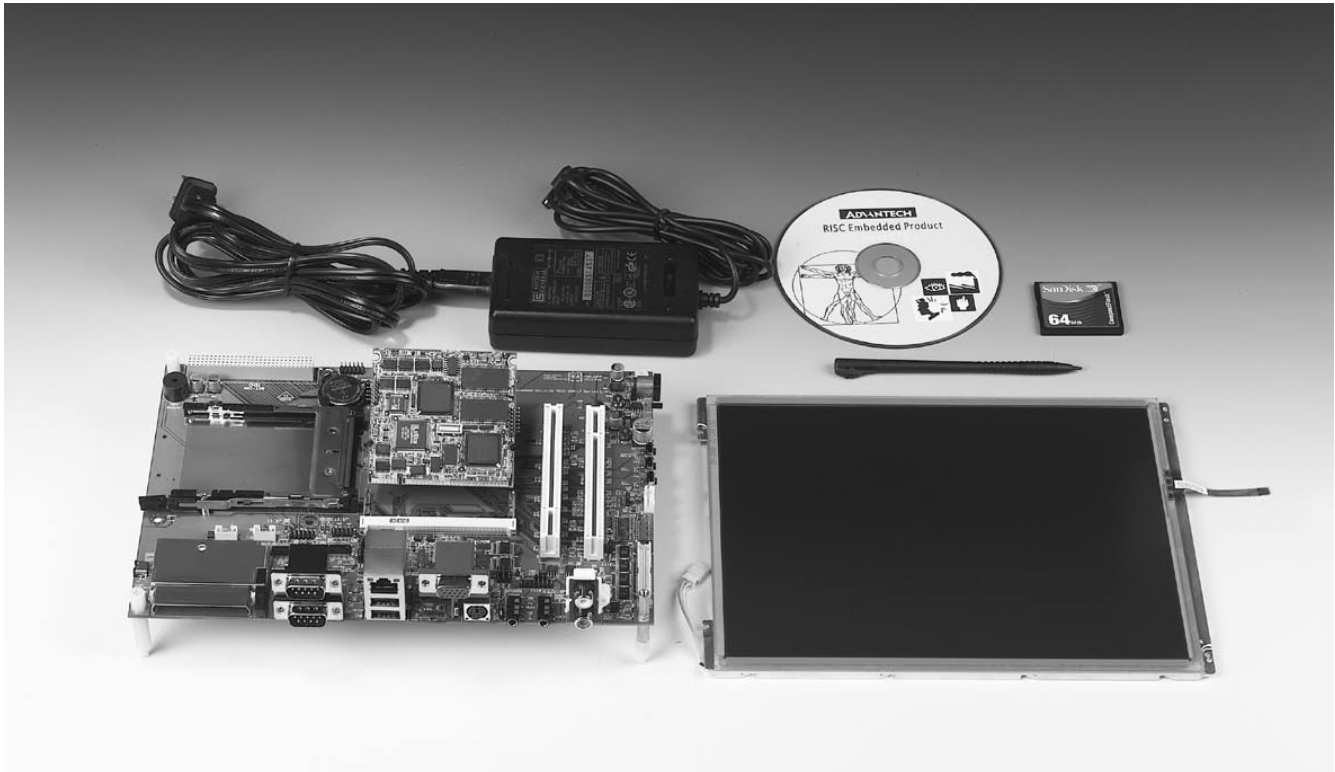# SOM-ADK2708 Series Design-in Kit

Design-in Kit for SOM-A2708 Intel XScale® PXA270 System On Module

CE FCC

Introduction

The Design-in Kit provides developers with a Customer Solution Board (CSB) and reference suite for application evaluation and development. It contains all the necessary information, documentation and tools for getting started, including the followings items:

- **Target SOM (SOM-A2708-540B0):** SOM-A2708 standard version board.
- **SOM-A2708 Series Reference Customer Solution Board:** Sample CSB for developer reference.
- **64 MB CompactFlash® Card**
- **Design-in Reference Documentation:**
  - Design-in zone login information card
  - Design-in kit user's manual
  - RISC SOM carrier board design guide
  - Schematics, bill of materials, CSB layout guide

- **Testing Set**

Designed for sample CSB or customers' own CSB/mass production testing. It includes:
  - H/W testing tools: RS-232 loop-back testing tool, null MODEM cable, JTAG cable, USB ActiveSync cable, Audio cable, RS-232 cable
  - S/W testing Utility: Advantech-developed testing utility. Test process will be implemented by S/W testing utility and H/W testing tools
  - Documentation: "Advantech RISC SOM Platform Testing Method". Designers can use the base documents to learn how to implement the testing process

- **Software Development Tools**

Software development tools are a complete package for customers to develop their target image to align with their target CSB and applications.
  - BSP: Binary Board Support Package for target SOM Design-in Kit. Users can integrate their target Windows CE platform with their own components, apps and drivers (BSP: by project request)
  - SDK: For customer target application development
  - Reference Image: For the selected model of SOM Design-in Kit
  - Upgrade Utility: Users can use the utility to upgrade logo, image & bootloader.

- **Design-in Zone Guide**

Advantech has established a dedicated website portal called SOM Design-in Zone to assist customers with CSB development by providing direct and professional support. The home page is located at http://risc-designin.advantech.com.tw

SOM-ADK2708-B00 does not include the LCD kit; please order your LCD kit of choice

LCD Kit: (OPTIONAL item)

Advantech supplies a full range of certified LCD kits in different sizes and types for customers to fit with their own target CSB and application.

Each LCD kit includes the selected LCD panel, inverter and cables which are designed to work with each Advantech Standard RISC-based SOM Design-in Kit platform.

The following LCD kits are currently available:

- 5.7" STN QVGA LCD kit (NAN-YA/LCBFBTB61M23)
- 6.4" TFT VGA LCD kit (PRIMEVIEW/PD064VT2)

Specifications

PCB Form Factor	237 mm x 160 mm
SOM Module P/N	SOM-A2708-540B0
Boot Loader Storage	Pre-installed on SOM module
OS Image Storage	On CompactFlash Card (CFC)
PCI	2 PCI slots which are compliant with PCI Spec. Rev. 2.2
Mini PCI	1 Mini PCI slot
AMI Bus (X1 Bus)	Advantech RISC standard AMI-120 connector with driving buffers on SOM module
Watch Dog	PXA270 Built-in
RTC	
System Backup Battery	65mAh 2032 type rechargeable Li-ion coin battery For RTC/SDRAM
Serial Port Conn.	2 x RS-232 DB-9 connectors (COM1,COM2) 1 x IrDA 1.1 Physical Layer (COM3) 1 x 5 x 2 2.00 mm pin header (COM4) 1 x 6 x 2 2.00 mm pin header (COM5)
Ethernet	1 x 10/100 Base-T LAN port w/ 2 LEDs
PCMCIA/CompactFlash	1 x Type II CFC slot and 1 x Type II PCMCIA slot
USB Host	2 x USB 1.1 host connector
USB Client	1 x mini USB 1.1 Client connector
PS/2	1 PS/2 connector for KB & MS.(Customers should use PS/2 Y cable to expand)
LCD Interface	40-pin advantech standard LCD connector supports 18-bit LCD (TTL level) interface, resolution up to 800 x 600
LCD LVDS	20-pin advantech standard LCD connector supports 1-channel LVDS signals
CRT	DB-15 conn., resolution up to 800 x 600
TV-In	1 RCA jack for TV-in function (SOM-A2708 does not support this feature)
TV-Out	1 RCA jack for TV-out function
T/S	4-wire resistive touch screen housing
Audio Interface	8 x 2 mm pin header-Line-in, Line-out, MIC-in, Speaker-out, Line-in Jack and Line-out Jack
Buzzer	Yes
SM Bus	SM bus housing
System Reset Button	H/W reset button, S/W reset button, Wakeup/Suspend button
OS Support	Windows CE .NET 5.0
Power Input	19 V_{DC} in with power switch
Inverter	5-pin housing for LCD inverter control
Operating Temperature	0 ~ 60° C
Operating Humidity	0% ~ 90%
Certification	FCC/CE

Ordering Information

SOM-A2708 Design-in Package

- **Design-in Kit SOM-ADK2708-B00 (Must Order)** — SOM-A2708 Series Design-in Kit (** without Panel)
- **LCD Kit LCD-A057-STQ1-0 (Optional Item)** — 5.7" STN QVGA LCD kit. The kit includes 4-wire resistive T/S, inverter, cables and installation guide
- **LCD Kit LCD-A064-TTV1-0 (Optional Item)** — 6.4" TFT VGA LCD kit. The kit includes 4-wire resistive T/S, inverter, cables and installation guide

Packing List

- **SOM-A2708-540B0** — SOM-A2708 standard SOM
- **SOM-A200 Series Carrier Board** — Carrier board for SOM-A2708-540B0
- **64 MB CompactFlash Card**
- **Testing Kit** — Includes H/W testing tools, S/W testing utility and documents
- **AC power Adaptor** — AC/DC power adaptor for Design-in Kit power supply
- **SOM-A2708 Series Support CD** — Included Software Development tools, SOM-A2708 spec, SOM-ADK2708 spec, SOM-A2708 manual, SOM-ADK2708 manual, Testing Kit application note & SOM-A2708 carrier board design guide