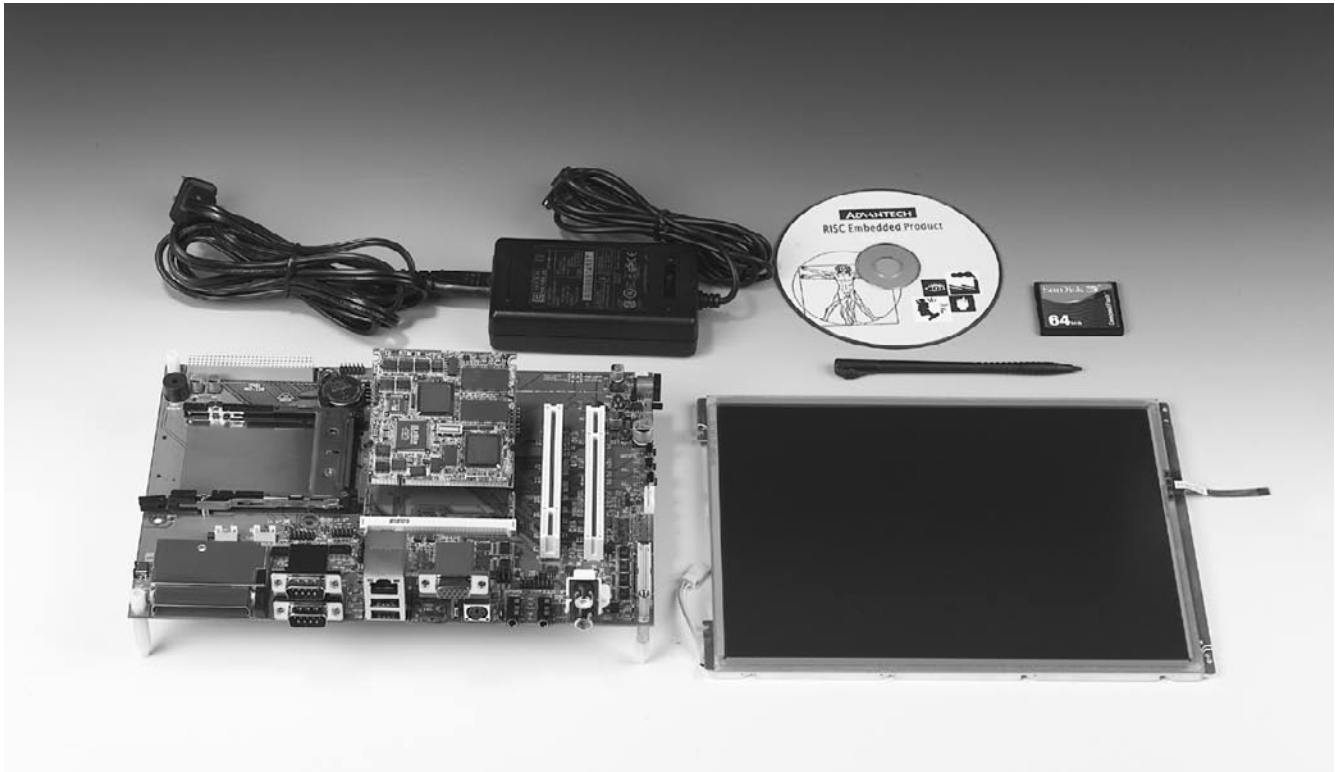


# SOM-ADK2558 Series Design-in Kit

Design-in Kit for SOM-A2558 Intel  
XScale® PXA255 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-A2558-440B1):** SOM-A2558 standard version board
- **SOM-A2558 Series Reference Customer Solution Board:** Sample CSB for developer reference
- **64 MB CompactFlash® Card**
- **Design-in Reference Documentation:**
  - 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 customer CSB/mass production testing. It includes:

- H/W testing tools: RS-232 loop-back testing tool, ADAM-4520 for RS-485 testing, null MODEM cable, JTAG cable, USB ActiveSync cable, Audio cable, RS-232 cable and RS-485 cable
- S/W testing utility: Advantech-developed testing utility. Test process will be implemented by S/W testing utility and H/W testing tools
- Support Document: "Advantech RISC SOM Platform Testing Method". Designers can learn how to implement the testing process

### Software Development Tools

Software development tools are a complete package for customers to develop their own target image to work with their 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 this 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, professional support. The home page is located at <http://risc-designin.advantech.com.tw>

\*\*SOM-ADK2558-B01 does not include the LCD kit; please order your LCD kit of choice\*\*

# SOM-ADK2558 Series Design-in Kit

## 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)

## Specifications

- **PCB Form Factor** 237 mm x 160 mm
- **SOM Module P/N** SOM-A2558-440B1
- **Boot Loader Storage** Pre-installed in SOM module
- **OS Image Storage** On CompactFlash Card (CFC)
- **PCI** 2 PCI slots (5 V, 3.3 V) 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** PXA255 Built-in
- **RTC** EVA-C210 Built-in
- **System Backup Battery** 65 mAh 2032 type rechargeable Li-ion coin battery For RTC/SDRAM
- **Serial Port** 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 10/100Base-T LAN port w/ 2 LEDs
- **PCMCIA/CompactFlash** 1 Type II CFC slot and 1 Type II PCMCIA slot
- **USB Host** 2 x USB 1.1 host Connectors
- **USB Client** 1 x mini USB 1.1 Client Connectors
- **PS/2** 1 PS/2 connector for KB & MS. (Customers should use PS/2 Y cable to expand )
- **LCD Interface (TTL level)** 40-pin Advantech standard LCD Connectors, 16-bit LCD interface, resolution up to 320 x 240
- **LCD LVDS** 20-pin Advantech standard LCD Connectors, supports 1-channel LVDS signals
- **T/S** 4-wire resistive touch screen housing (SPI interface option)
- **Audio Interface** 8 x 2.00 mm Pin header: Line-in, Line-out, MIC-in and Speaker-out. mic-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 4.2
- **Power Input** 12 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-A2558 Design-in Package

- **Design-in Kit SOM-ADK2558-B01 (Must order item)** SOM-A2558 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.

## Packing List

- **SOM-A2558-440B1** SOM-A2558 standard version board.
- **SOM-A2558-440B1 Carrier Board** Carrier board for SOM-A2558-440B1
- **64 MB CompactFlash**
- **Testing Kit** Includes H/W testing tools, S/W testing utility and documentation.
- **AC power Adaptor** AC/DC power adaptor for Design-in Kit power supply.
- **SOM-A2558 Series Support CD** Includes Software Development tools, SOM-A2558 specs, SOM-ADK2558 specs, SOM-A2558 manual, SOM-ADK2558 manual, Testing Kit application note & SOM-A2558 carrier board design guide