SOM-A9315
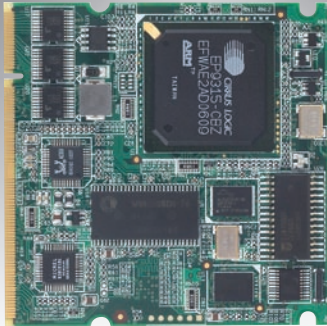
SOM with Cirrus® EP9315 Processor + Windows® CE 5.0

Project based

Features

- Cirrus® ARM9 based EP9315 + Microsoft Windows® CE 5.0
- Compatible w/ Advantech RISC SOM (RTX) architecture
- Graphic 2D accelerator and H/W floating point accelerator
- Rich I/O interface : CAN 2.0B, LAN, USB, COM, hotkey, DIO, audio, PCMCIA
- Multi-storage solution: IDE, USB, PCMCIA
- Complete SW support package with SDK for easy application development
- Supports Adobe® Flash® Player 7.0 & Java virtual machine per project based

Introduction

ARM9 base, IO intensive, best Performance/Cost, OS-Ready System On Module

With RISC SOM RTX form factor, SOM-A9315 Series integrates Cirrus EP9315 ARM9 based low power SoC, NXP CAN solution & Oxford multi-COMs solution chips to offer customers excellent fanless performance & rich I/O expansion on a System On Module.

Design-in Package Ensures Efficient, Low-Risk Project Evaluation

The comprehensive design-in package provides developers with a complete design-in kit, detailed design guide documentation, as well as the Windows CE Board Support Package (BSP) by request, and a set of testing tools for custom target platform image building.

Three support mechanisms are included in the design-in package:

Design-in Kit: Provides developers with a complete design-in suite kit for application evaluation/development and Customer Solution Board (CSB) development
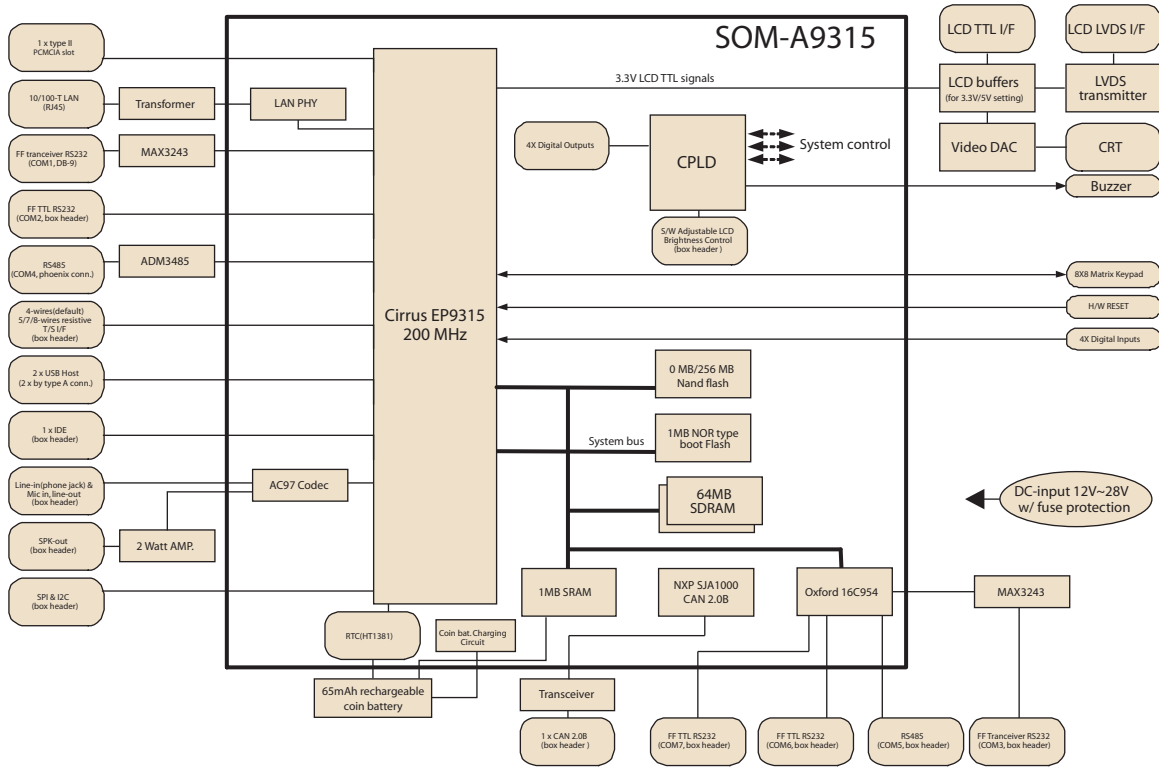**LCD Kit:** Certified LCD kit for customers to test LCD performance.
Design-in Zone: Assists customers with their own CSB development by providing front-to-end technical support (http://risc-designin.advantech.com.tw/)

Specifications

S/W	OS	Windows CE 5.0 English professional plus ver.
Kernel	CPU	Cirrus ARM9 based EP9315 200 MHz
	Math Engine	H/W floating point accelerator from EP9315
	SDRAM	32 MB/64 MB (optional)
	Boot Flash	1 MB NOR flash (for bootloader only)
	Storage Flash	Sandisk flash 0 MB (default)/256 MB
	SRAM	0 MB/1 MB (default)
	RTC	HT1381
	Watchdog	EP9315 internal
	Power Management	Normal & Idle mode. When in idle mode, system turns off the LCD back light only. Wakeup by event trigger (T/S, USB...)
	Reset	H/W reset (No SW reset)
I/O	ARM Bus (CPU system bus)	N.A.
	CAN	1 x CAN 2.0b by NXP SJA1000
	COM	7 X
	LAN	1 x 10/100-T
	USB	2 x USB host ports (No USB client)
	PS/2	N.A.
	PCI	N.A.
	GPIO	3 x 3.3 V TTL level (One could be interrupt source)
	DI/DO	4 x 3.3 V TTL level DI & 4 x 3.3 V TTL level DO

I/O	Hotkey/Matrix keypad	8 x 8 (64 pins max.) 3.3 V TTL level
	CF/PCMCIA	1 x (system default boot port)
	IDE	1 x (ATA/ATAPI compliant. bootable I/F)
	I2C	design reserved
	SPI	design reserved
	Touch Screen I/F	4 (default)/5/7/8 wire resistive type I/F
Multimedia	Graphic Controller	EP9315 internal 18-bits graphic controller
	Graphic Accelerator	Supports 2D graphic accelerator by EP9315 internal
	CRT out	N.A. (could be implemented on CSB)
	LVDS out	N.A. (could be implemented on CSB)
	LCD out	3.3 V TTL level 18 bits
	Resolution Support	320 x 240 ~ 800 x 600 (default)
	Inverter Control	SW configurable LCD back light on/off and brightness control I/F
	Audio	AC97 Codec on board
	Buzzer Control	Yes
Others	DC-input	3.3 V + -3 %, 5.0 V + -3 %
	Form Factor	Advantech RISC SOM RTX form factor
	Board Size	68 x 68 x 6.8 mm (2.67" x 2.67" x 0.27")
	Power Comsuption	~ 2.5 watt (not including the CSB and any peripherals, SOM only. And no speical AP running.)
	Temperature	Operation : 0° C ~ 60° C (-40° C/-20° C ~ 80/85° C as option)
	Certification	CE/FCC

Board Diagram

SOM-A9315
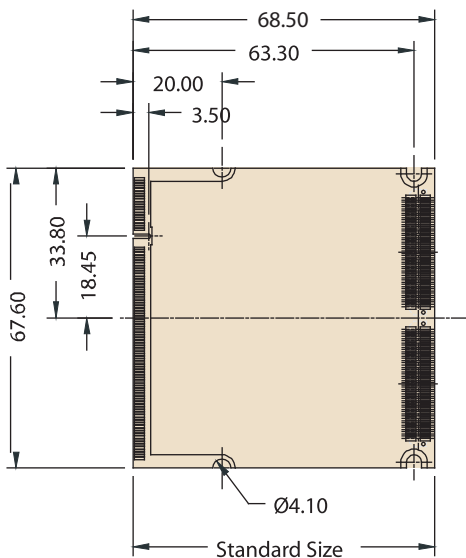
NOTE: The components in SOM-A9315 frame are implemented on SOM. The others out of frame are not on SOM.

Mechanical dimensions

Unit: mm

68.50
63.30
20.00
3.50
33.80
18.45
67.60
Ø4.10
Standard Size

Ordering Information

SOM-A9315 Design-in Package

Part No.	Description
SOM-ADK9315-B00E (SOM & carrier board kit)	SOM-A9315 Series design-in kit. (must order before purchase SOM only) (** without panel bundle, please order designated LCD kit)
LCD-A104-TTS1-0 (Optional item)	10.4" TFT SVGA LCD kit. The kit includes 4-wire resistive T/S, inverter & related cables. (Advantech reference image default supported)

SOM-A9315 Series SOM (Module only)

Part No.	Description
SOM-A9315-240B0E	SOM Cirrus EP9315 200 MHz, 64 MB SDRAM, 1 MB SRAM, CAN 2.0b, 7 COMs & Win CE 5.0
Order your own reconfigured SOM	After Developers have evaluated the kit and decided to order a reconfigured sample run SOM, they can check the reconfiguration options in the above specification table to order their customized SOM-A9315 product. Contact local Advantech sales or distributor for reconfiguration requests.

Packing List

Bulk packing with 22 pcs in one box
SOM only comes with the bootloader pre-installed and WinCE professional plus version license sticker
**Sample image and related documentation included with Design-in kit only.