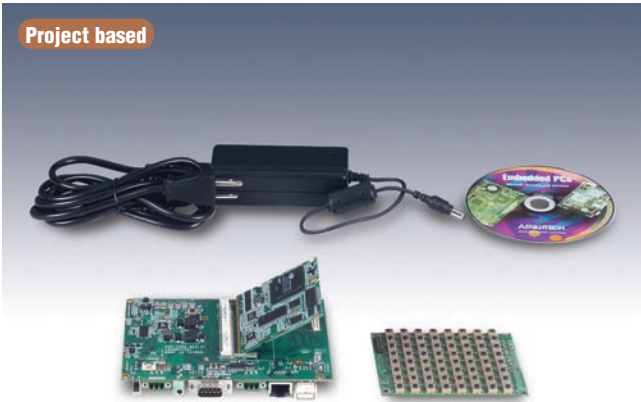# SOM-ADK9315 Evaluation Kit

OS-ready Cirrus® EP9315 + 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, RS232, RS485, 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 on project basis

Introduction

Evaluation kit based on Cirrus EP9315 with Windows CE 5.0 makes project evaluation easy and risk-free

The SOM-ADK9315 evaluation kit integrates certified functional peripherals using Windows CE 5.0, offering efficient development and risk-free implementation from the very beginning. This evaluation kit includes SOM-A9315 with carrier board, matrix keypad, power adaptor, testing fixture, related cables and software support CD. There is also an optional 10.4" LCD kit for testing LCD performance. Advantech also offers a rich software support package for customers to evaluate, including: reference boot loader, reference image, upgrade utility, testing utility, platform setting utility, etc.

Design-in Zone Membership

Advantech has established a dedicated website portal, Design-in Zone, to assist customer development by providing direct and professional technical support in the most efficient way. The home page is located at http://risc-designin.advantech.com.tw. Through the design-in zone, customers can get the most up-to-date technical support documentation and front-to-end technical support.

Specifications

S/W	O.S.	Windows CE 5.0 English professional plus ver.
	GUI Firmware	Adobe Flash player 7.0 & Java virtual machine on project basis
Kernel	Board Architecture	SOM-A9315 with Advantech reference carrier board
	CPU	Cirrus ARM9 base EP9315 200 MHz
	Math Engine	H/W floating point accelerator from EP9315
	SDRAM	64 MB
	Boot Flash	1 MB NOR flash for bootloader only
	Storage Flash	0 MB (system can boot from IDE Hard Disk or CF memory card: CF/PCMCIA slot)
	SRAM	1 MB
	Graphic Chip	EP9315 internal 18-bits LCD controller
	RTC	HT1381
	Watchdog	EP9315 internal
	Power Management	Normal & Idle mode. Idle mode: turn off the LCD back light only. Wakeup by event trigger (T/S, USB mouse)
	Reset	H/W reset (No SW reset)
I/O	CAN	1 x CAN 2.0B through NXP SJA1000 by box header
	COM	7 x COM ports : 5 x RS232, 2 x RS485
	LAN	1 x 10/100-T by RJ45
	USB	2 x USB host ports (No USB client)
	DI/DO	4 x TTL level DI & 4 x TTL level DO by box header
	Hotkey/Matrix Keypad	8 x 8 (64 pins max.) matrix keypad w/ power pin on the box header
	PCMCIA	1 x type II (supports memory & IO mode, bootable I/F)
	IDE	1 x by box header (ATA/ATAPI compliant, bootable I/F)
	I2C	1 x by box header (reserved)
	SPI	1 x by box header (reserved)
	Touchscreen	4-wire resistive type by box header (5/7/8 on project basis)
Multimedia	Graphic Accelerator	Supports 2D graphic accelerator by EP9315
	CRT out	Yes (by box header)
	LVDS out	1 channel (image default support AUO 10.4" LCD, Advantech LCD kit P/N: LCD-A104-TTS1-0)
	LCD out	18 bits TTL level
	Audio	Line-out by phone jack; Line-in, Mic-in & SPK-out by box header. SPK w/ 2-watt audio AMP support (the kit include 2 x 2 watt speakers)
	Buzzer	Yes

Board Diagram

Power	Power Adaptor	110 V/220 V AC/DC adaptor w/ 19 V DC-output
	Carrier board DC-input	12 V ~ 28 V
	Coin-battery	Rechargeable Li-ion 3 V 65 mAh coin-battery for RTC (charging circuit on SOM)
	Power Switch	Slide type
Others	Carrier Board Size	102 mm x 146 mm (4" x 5.7")
	Temperature	operation 0° C ~ 60° C; -40° C/-20° C ~ 80° C/85° C as option (SOM w/ CSB)
	Certification	CE/FCC

Packing List

Item	Description
SOM-ADK9315	Includes SOM-A9315 with carrier board, AC/DC power adaptor, 2 x 2 watt speakers, matrix keypad, CF card (image inside), CF-to-PCMCIA adaptor and related cables
Testing Tool	Includes RS232 loop-back fixture, expansion conn. cable, male type phoenix conn.
Support CD	Includes datasheet, user manual, upgrade utility, testing utility, SDK, design-in zone guide
License	Microsoft Windows CE end-user license agreement (image installed in CF memory card)

Ordering Information

Part No.	Description
SOM-ADK9315-B00E (Must Item)	Evaluation kit for Cirrus EP9315 w/Windows CE 5.0, 64 MB SDRAM, 1 MB boot flash, 1 MB SRAM
LCD-A104-TTS1-0 (Option item)	10.4" LCD kit TFT 800 x 600 include 4-wire T/S, inverter and related cables

* SOM-A9315 graphic-output performance can be checked without LCD kit via CRT output port on carrier board
* SOM-ADK9315 image default supports LCD-A104-TTS1-0.

IO Placement