ARM9 Development Board
with 3.5' Touch LCD - S3C2440
Quick Start Guide

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TECHNICAL SUPPORT
The ARM 9 Development Board from RhydoLabz can be used to evaluate and demonstrate the capabilities of Samsung S3C2440A ARM9 processors. This board comes with 3.5' TFT LCD - Touch screen, 400 MHz Clock Frequency, 64 MB of SDRAM, 64 / 128 MB of NAND Flash and 2 MB of NOR Flash. The board measures 10 cm x 10 cm, ideal for learning about ARM systems or integrating into numerous products and porting Windows CE or Embedded Linux.

**BOARD FEATURES**

- **CPU** - Samsung S3C2440A 400MHz (Max frequency- 533Mhz )
- **SDRAM**
  - 64 MB SDRAM
  - 32-bit Data Bus width
  - 100 MHz Clock
- **FLASH**
  - 128 MB Nand Flash
  - 2 MB Nor Flash, BIOS installed
- **LCD**
  - 4 wire resistive Touch Screen Interface
  - Company : NEC
  - Panel Type : TFT
  - Resolution : 320 x 240 RGB
  - Reflectivity : 7
  - Illumination : 90 cd/m
  - Contrast 10:1
  - Display Mode : 80:1 Transmissive
Shape Size : 64.0 (H) 85.0 (V) 4.13 (D) (mm)
Active Area : 53.64 (H) 71.52 (V) (mm)
Dot Pitch : 74.5 x 223.5mm
Backlight Type : LED

• INTERFACE AND RESOURCE

- 10/100M Ethernet RJ-45(DM9000)
- 3 Serial Ports (One RS232 with CTS and RTS)
- One USB Host
- One USB Slave Type B
- One SD Card Interface
- One Stereo audio output Interface, One MIC Interface
- One 10-Pin JTAG Interface
- Four USER LED’s
- Six USER buttons
- One PWM Controlled Buzzer
- One POT can be used for A/D converter adjust
- One AT24C08 for I2C test
- One 20-Pin Camera Interface
- One Battery for RTC
- One Power In (5V), with switch and lamp
- **OSCI LLATOR FREQUENCY**
  - 12 MHz

- **RTC**
  - Internal and battery backed

- **EXPANSION INTERFACE**
  - One 34-Pin 2mm GPIO Interface
  - One 40-Pin 2mm System Bus Interface

- **DIMENSIONS**
  - 100 x 100 (mm)

- **OS SUPPORT**
  - Linux 2.6.13
  - Linux 2.6.29
  - Windows CE.Net 5.0

## PACKAGE CONTENTS

- 1 x S3C2440 board (Preload with Linux)
- 1 x Serial cable
- 1 x Net cable
- 1 x USB cable
- 1 x 5V power adapter
- 1 x Parallel port wiggler JTAG emulator (for H-JTAG)
- 1 x DVD-ROM with product reference
- 1 x TFT LCD: 3.5", 240x320, with touch panel
DVD-ROM CONTENTS

- H-JTAG Debugger
- Windows Flash Programmer SJF2440
- Linux Nand Flash Programmer Jflash-2440 (source code included)
- Serial tool CRT, dnw
- Bitmap to C Language transfer tool
- USB Driver (WindowXP/2000)
- Vivi source code (Linux Boot loader)
- LED test program (ADS 1.20 project)
- 2440 test program (ADS 1.20 project) include:
  - Key test, RTC test, ADC test, IIS Audio play (.wav), IIS Audio record,
  - Touch screen test, I²C test, Samsung 3.5"LCD, 640 x 480 TFT test
- Windows CE 5.0 BSP and sample project files.
- Pre-compiled WinCE 5.0 image for evaluation
- Linux tool and kernel source code
  - ARM-linux-gcc-4.3.2 with EABI
  - yaffs2 file system image maker -mkyaffs2 image
  - Linux-2.6.29 for S3C2440 kernel source code (include DM9000, LCD driver, Audio, Touch screen, YAFFS Source code, SD Card, RTC, Expand serial driver, USB Camera, USB Mouse and Keyboard, U-Disk)
- Pre-compiled Linux image for evaluation
- Qtopia 2.2.0 source codes, web browser source codes
- uCos2 source code and binary images
- Schematics (Protel99SE/PDF format)
- User Manual
TECHNICAL SUPPORT

If you are experiencing a problem that is not described in this manual, please contact us. Our phone lines are open from 9:00 AM – 5:00 PM (Indian Standard Time) Monday through Saturday excluding holidays. Email can be sent to support@rhydolabz.com

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