

Document: Datasheet
Date : 19-JUN-2010







ARM9 Development Board with 7' Touch LCD - S3C2440 Quick Start Guide



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CONTENTS

-  OVERVIEW
-  BOARD FEATURES
 1. CPU
 2. SDRAM
 3. LCD
 4. INTERFACE AND RESOURCE
 5. OSCILLATOR FREQUENCY
 6. REAL TIME CLOCK (RTC)
 7. EXPANSION INTERFACE
 8. DIMENSIONS
 9. OS SUPPORT
-  PACKAGE CONTENTS
-  DVD-ROM CONTENTS
-  IMAGES
-  TECHNICAL SUPPORT

The ARM 9 Development Board from GE-TH can be used to evaluate and demonstrate the capabilities of Samsung S3C2440A ARM9 processors. This board comes with 7" TFT LCD – Touch screen, 400 MHz Clock Frequency, 64 MB of SDRAM, 128 MB / 256 MB / 512 MB / 1G of NAND Flash and 2MB 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 / 256 MB / 512 MB / 1G Nand Flash
- ✚ 2 MB Nor Flash, BIOS installed

LCD

- ✚ 4 wire resistive Touch Screen Interface
- ✚ Company : NEC
- ✚ Panel Type : TFT
- ✚ Resolution : 800 x 480 RGB
- ✚ Illumination : 320 cd/m²
- ✚ Contrast : 300:1

- ✚ Shape Size : 165(H) 104 (V) 5.5(D) (mm)
- ✚ Active Area : 152.4 (H) 91.44 (V) (mm)
- ✚ 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

OSCILLATOR 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

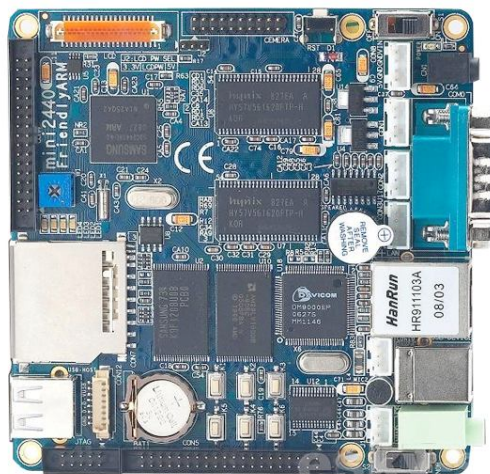
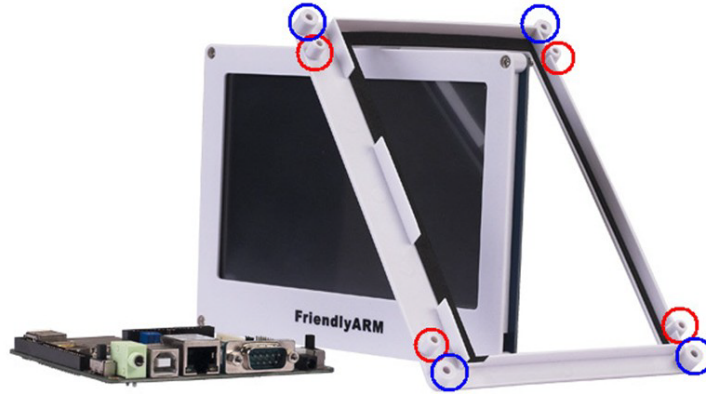
- ✚ 1 x S3C2440 board (Preload with Linux)
- ✚ 1 x Serial cable
- ✚ 1 x Net cable
- ✚ 1 x USB cable
- ✚ 1 x 5V power adapter
- ✚ 1 x Parallel port wiggler JTAG emulator (for H-JTAG)
- ✚ 1 x DVD-ROM with product reference
- ✚ 1 x TFT LCD: 7", 800x480, with touch panel

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

NOTE: Linux kernel will be upgraded to new version accordingly.

IMAGES





TECHNICAL SUPPORT

If you are experiencing a problem that is not described in this manual, please contact us. Email can be sent to service@ge-th.com.

- We will reply your email within 24 hours!
- 7 days a week, 365 days a year support!

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