







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



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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 3.5' 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 : 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

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: 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

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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