

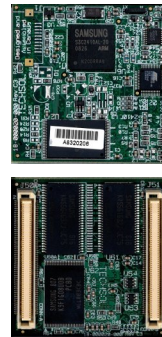
SA2410D Medallion CPU Module

\$Id: SA2410.xml 2436 2011-12-02 00:40:25Z brolin \$

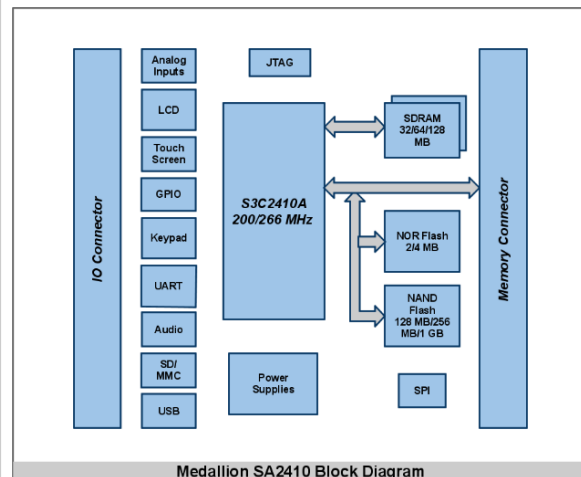
This Module is powered by a Samsung S3C2410A(L) processor, featuring an ARM-920T core with MMU and cache memories. Note that the cache is larger on this processor than on most other ARM-9 chips with a 922T or 926T core. The LCD controller will drive STN and CSTN displays with 4 or 8 data lines, plus TFT displays with up to 6 bits for each of Red, Green, and Blue data. Plus there are extra timing signals for today's advanced TFT and LTPS displays. But it also still has all the serial ports, IrDA, SPI, I²C, key-scan, and 32-bit bus of the other Medallions!

| Feature | Description |
|-----------------|---|
| Processor speed | Variable from 12 to 200 or 266 MHz |
| Power | <ul style="list-style-type: none"> • Single 3.3 V supply in • on-board 1.8 V supply • on-board reset controller |
| Serial ports | <ul style="list-style-type: none"> • 1 UART with modem control lines • 1 UART with RX/TX • 1 IrDA • 1 I²C (in HW) • 1 SPI |
| USB | <ul style="list-style-type: none"> • 2 Full-speed host ports (12 Mbps) • 1 Full-speed device (Gadget) port |
| Audio | <ul style="list-style-type: none"> • Stereo Line-in (8 to 48 kHz) • Stereo Line-out (8 to 48 kHz) |

Product Image



Block Diagram



[enlarge image](#)

Ordering Information

| Feature | Description |
|------------------|---|
| LCD | <ul style="list-style-type: none"> • 4- or 8-bit STN and CSTN • 18-bit TFT • integrated touch-panel controller • FETs on-board |
| Keypad | Key-matrix scan hardware supporting up to 88 keys (8 x 11) |
| Bus | <ul style="list-style-type: none"> • 32 Data • 26 Address • 3 Chip-selects • 4 Write “lanes” • 1 Read • 3 IRQs • Expansion Clock and Ready |
| NOR flash | Techsol’s boot loaders and Linux 2.6.x kernel are stored in 2 MB of NOR flash. |
| Main memory | up to 128 MB of SDRAM |
| Solid-state disk | provided via NAND flash (up to 1 GB) |
| Memory expansion | Memory card interface supporting: <ul style="list-style-type: none"> • MultiMediaCard (MMC) • Secure Digital (SD) • SDIO |
| Dimensions | 50 mm × 50 mm |
| Software | Included drivers: <ul style="list-style-type: none"> • all the on-board peripherals • Linux framebuffer • Nano-X • GTK+ • Qt Embedded |

| Model Name | Part Number | Price: \$ at Q=1000 |
|-------------|----------------|----------------------|
| SA2410D#340 | 37#000020#340# | \$99 |
| SA2410D#350 | 37#000020#350# | \$99 |
| SA2410D#650 | 37#000020#650# | call |
| SA2410D#640 | 37#000020#640# | call |
| SA2410D#850 | 37#000020#850# | call |
| SA2410D#840 | 37#000020#840# | call |

Please [Contact Us](#) for pricing for other quantities.

Contact Us

| | |
|-----------|--|
| Telephone | 1 888 TECHSOL |
| Web | Contact form |
| E-mail | <sales@techsol.ca> |

See also

- [SA2410 press release](#)
- [DevKits](#)

| Feature | Description |
|---------|---|
| | <ul style="list-style-type: none"> • X11 (Xorg) • Audio Play and Record programs • file systems • USB: <ul style="list-style-type: none"> • Mass Storage Devices • Human Interface Devices <ul style="list-style-type: none"> • text input devices, such as keyboards • pointing devices, such as mice and trackballs • USB Gadget • etc. • for all the I/O board peripherals, such as: <ul style="list-style-type: none"> • Ethernet • USB Gadget • extra UARTs • etc. |

Applications

This module is useful in a wide range of applications due to its:

- High Speed (32-bit RISC CPU at 200 or 266 MHz)
- Low Power (1.8 V core with myriad power-saving options)
- Large Storage Capabilities (up to 1 GB of storage on the module)
- Low Cost (Ultra-high Value Proposition!)

Customers of this module have deployed them in:

- Aftermarket Automotive Products
- Card Payment Terminals
- Telematics
- Industrial Controls
- Hand-held Inventory Computers
- Factory Automation and Monitoring
- Building Controls and Monitoring
- Gas-well Monitoring and Telemetry

- Medication Dispensing Systems

But the SA2410 is adaptable to so many tasks, we can't list them all here!

Comparison

| Config | NOR flash | NAND flash | SDRAM | USB Host | USB Device | LCD | Touch | Audio in | Audio out | Keypad scan | | | | | | |
|--------|-----------|------------|--------|----------|------------|------|-------|----------|-----------|-------------|---|--|--|--------|--------|---|
| 340 | 2 MB | 128 MB | 32 MB | 1 | 1 | SVGA | # | | | | | | | | | |
| 350 | | | | 2 | 0 | | | | | | | | | | | |
| 650 | | | 64 MB | 2 | 0 | | | | | | | | | | | |
| 640 | | | | | | | | | | | 1 | | | | | |
| 850 | | | 128 MB | | | | | | | | | | | Stereo | Stereo | # |
| 840 | | | | | | | | | | | | | | | | |