



FEATURES HIGHLIGHT

- Processor – S3C2412 Samsung ARM9EJ-S @ 200 / 266 MHz
- Operating System Linux 2.6
- 64MB Samsung Mobile DRAM
- 32MB Samsung NAND Flash
- Micro SD slot, supports up to 1GB
- USB (ver 1.1) - 2 port HOST / 1 port device
- 3 channel UART (LVTTL)
- Security - DS3640B Tamper Detection IC on Board
- RTC with Calendar function
- Extended BUS Connectors 2 x 100 pins

APPLICATIONS

- Mobile Applications: Multimedia Players, POS, etc
- Automotive Applications: In-car entertainment systems
- Embedded Applications
- Industrial Automation
- Medical Instrumentation
- Security and Access control
- Telematics

OVERVIEW

This ARM9(R) CPU module is designed to provide cost-effective, low-power and highperformance solution.

Processor supports a variety of memory types such as NOR, SRAM and low-power mobile SDRAM as well as removable storage like SD and MMC. It also supports and enhanced set of power modes to reduce power consumption.

Displays are supported that range from 65K-color STN to 16M-color TFTLCD in a variety of resolution, thus enhancing design flexibility.

This Series are computing modules, for applications that require higher computing power at smaller size. The module with a custom made carrier board can be made available to meet specific computing requirements in small to medium volumes. The entire system bus is made available at the edge connectors along the customer to build large devices around this computing module.

SPECIFICATIONS

Physical Characteristics

Dimensions: 71 (L) x 46(W) x 9(H) mm
2.8 (L) x 1.8 (W) x 0.4(H) in.

Boot loader: U-Boot 1.1.4

Programming: Cramfs

Performance Characteristics

CPU: S3C2412 High-performance 32-bit ARM(R)9EJ-S core

Operating System: Linux 2.6.16

Memory (RAM/ROM):

- 32MByte SAM NAND Flash
- 64MByte SAM Mobile DRAM
- Micro SD slot, support up to 1GB

Peripherals:

- USB 1.1 Host 2-Nos or 1-Host and 1Device
- External Support: SPI, I2C, IIS, IrDA
- System Timer including a 16-bit Counter, Watchdog
- Extended bus connector, 2x100 pins
- Support for 64K Color STN / 16M Color TFT

Security:

- IC-Dallas D3640 – I2C secure supervisor with 1KB
- NonImprinting
- Battery Backed Encryption Key SRAM
- The DS3640B IC supports the highest security level of the FIPS-140.2, Common Criteria, PCI-PED, and EMV-4.1 certification entities.
- Real time clock with leap year compensation valid up to 2100
- Crystal Oscillator tamper monitoring
- On-Chip Random Number Generation
- On chip programmable temperature sensing with proprietary Rate-of- Change Detector

User Environment

Operating Temperature -20°C to +85°C

Storage Temperature -40°C to +105°C

Humidity: 15% to 95% relative humidity, non-condensing

Important: Specifications provided in this datasheet are only preliminary. Final specifications and the availability to be checked with Prodigy while placing the order.