SBC-R9™ RISC Embedded Computing

Real-Time Embedded Computing with Industrial I/O



Features

- > Atmel AT91SAM9263 ARM® Processor
- > Up to 256MB SDRAM and 256MB Flash Memory
- > Dual SD/MMC Expansion Card Slots
- > LCD and Backlight Controller
- > Resistive Touchscreen Controller
- > 10/100 BaseT Ethernet
- > Two USB 2.0 Ports; USB Device Port
- > CAN Bus Interface
- > On-board Serial, Digital, and Analog I/O
- > Low Power Requirements
- > Compatible with Windows Embedded CE 6.0 and Linux

The SBC-R9 delivers RISC computing power with a wealth of I/O features and uses the latest embedded software environment.

The SBC-R9 is an application-ready platform for your next product design. The system is based on the 200MIPS Atmel AT91SAM9263 microcontroller boasting a 32-bit ARM® instruction set for maximum performance. With up to 256MB RAM

and 256MB Flash memory, the unmatched I/O features of the SBC-R9 extend the possible uses beyond traditional ARM applications.



Perfect for Product Development



Ask About
Custom
Product Design

To provide the fastest time to market, the Windows CE 6.0 BSP binary and low-level drivers for system I/O are included. Additionally, the SBC-R9 software package is equipped with the Sealevel Talos I/O Framework, which offers a high-level object-oriented .NET Compact Framework (CF) device interface. This interface provides an I/O point abstraction layer with built-in support for the specific needs of analog and digital I/O such as gain control and debouncing.



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Specifications

Processor

- > Atmel (AT91SAM9263) 200MIPS RISC Processor
- > 16KB Data Cache, 16KB Instruction Cache, Write Buffer
- > Integrated Memory Management Unit (MMU)

Memory

- > Up to 256MB SDRAM
- > Up to 256MB Flash
- > Two SD Memory Card Sockets

LCD Controller

- > Supports Passive or Active Displays
- > 16-bit Color in TFT/STN Modes
- > Resolution Up to 2048 x 2048

Touchscreen Controller

> Supports 5-wire Resistive Touchscreens

Bus Interfaces

- > 10/100 BaseT Ethernet
- > USB Device Port
- > Two USB 2.0 Ports
- > CAN Bus

Industrial I/O

- > Four Software Configurable RS-232/422/485 Ports
- > Dedicated RS-485 Expansion
- > Eight Optically Isolated Inputs (5 30V)
- > Eight Open-Collector Outputs (2 with PWM)
- > Eight Analog Inputs (12-bit or 16-bit)
- > Two 32-bit Quadrature Counters

> 7 — 30VDC Input

Environmental

- > Operating Temperature Range:
 - -40°C +85°C
- > Storage Temperature Range: -60°C-+150°C

Physical Dimensions

> 7.3" (L) x 4.9" (W) x 0.7" (H)

SBC-R9 Block Diagram



