Relio 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
> 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
> Wide Temperature Range
> Compatible with Windows Embedded CE 6.0 and Linux

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

The Relio R9 delivers RISC computing power in a compact, rugged package. Packed with a wealth of I/O features and using the latest embedded software environment, the Relio R9 is an application-ready platform for your next product design. The system is based on the Atmel AT91SAM9263 processor boasting a 32-bit ARM® instruction set for maximum performance and 16-bit Thumb® instruction set for increased code density. With up to 256MB RAM and 256MB Flash memory, the unmatched I/O features of the Relio R9 extend the possible uses beyond traditional ARM applications. For the fastest time to market, Windows CE 6.0 BSP and low-level drivers for system I/O are included.

Left Side View

Local or remote I/O expansion is available using Sealevel SeaI/O data acquisition modules. Choose from a variety of I/O configurations including optically isolated inputs, Reed and Form C relay outputs, TTL interfaces, A/D, and D/A. The Relio R9 connects to SeaI/O modules via the dedicated RS-485 expansion port and communicates via RS-485 Modbus RTU.

Right Side View

For applications with specialized hardware requirements, use the Relio R9 as a platform for application development while a customized target system is designed specifically for your requirements. Sealevel offers full electrical, mechanical, and software design services to supplement your in-house capabilities. Let us help you take your design from concept, through prototype and certifications, and to production in record time.

Perfect for Product Development

Ask About Custom Product Design

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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)
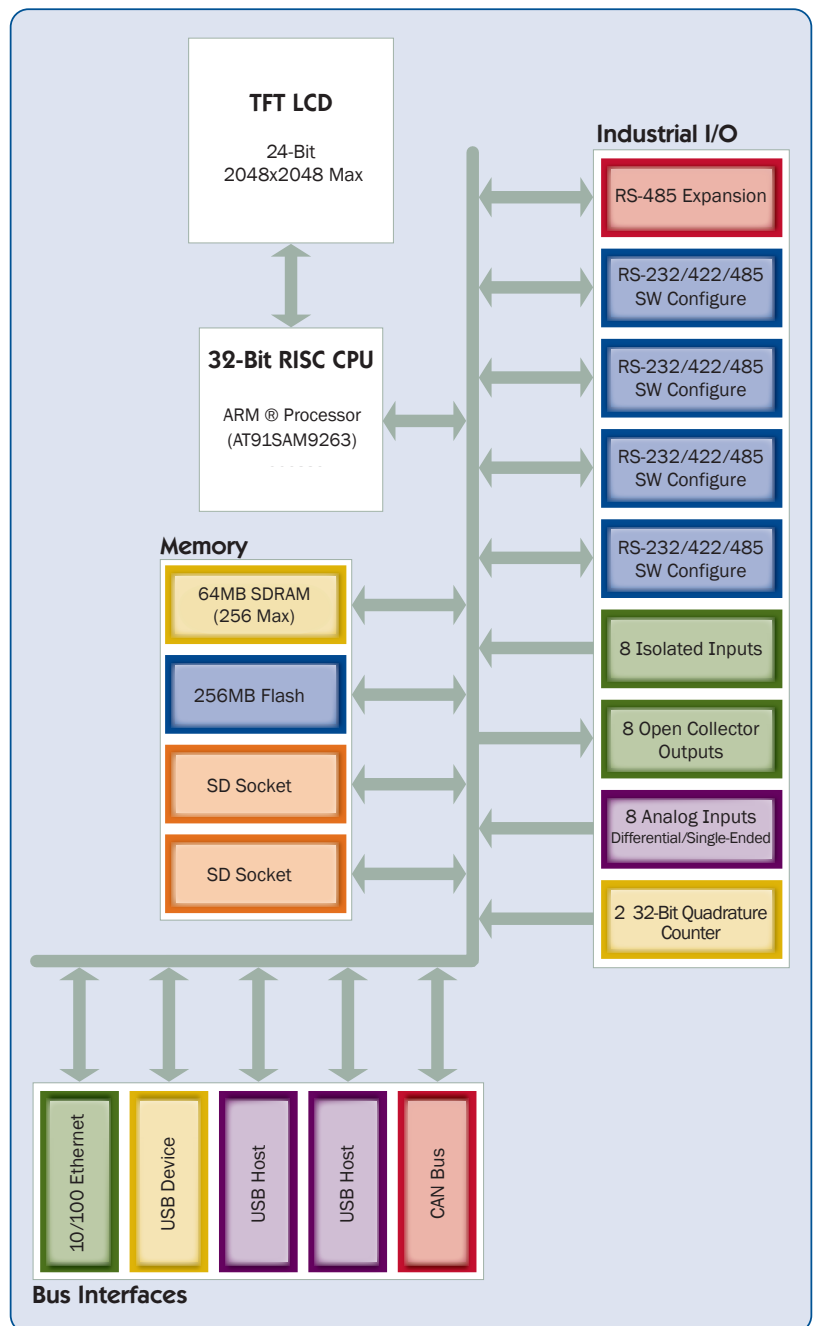> Two 32-bit Quadrature Counters

Power
> 7 — 30VDC Input

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

Physical Dimensions
> 7.6" (L) x 5.1" (W) x 1.7" (H)

Relio R9 Block Diagram