

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

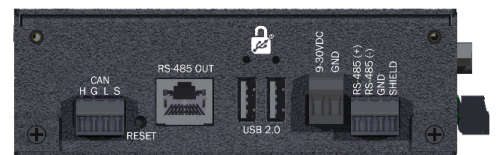
The Relio R9 delivers RISC computing power with a wealth of I/O features and uses the latest embedded software environment.

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.

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.

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.



Left Side View



Right Side View

Perfect
for
Product
Development



Ask About
Custom
Product Design

SEALEVEL®

www.sealevel.com > Tel: 864.843.4343 > sales@sealevel.com

Relio R9™ RISC Embedded Computing

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

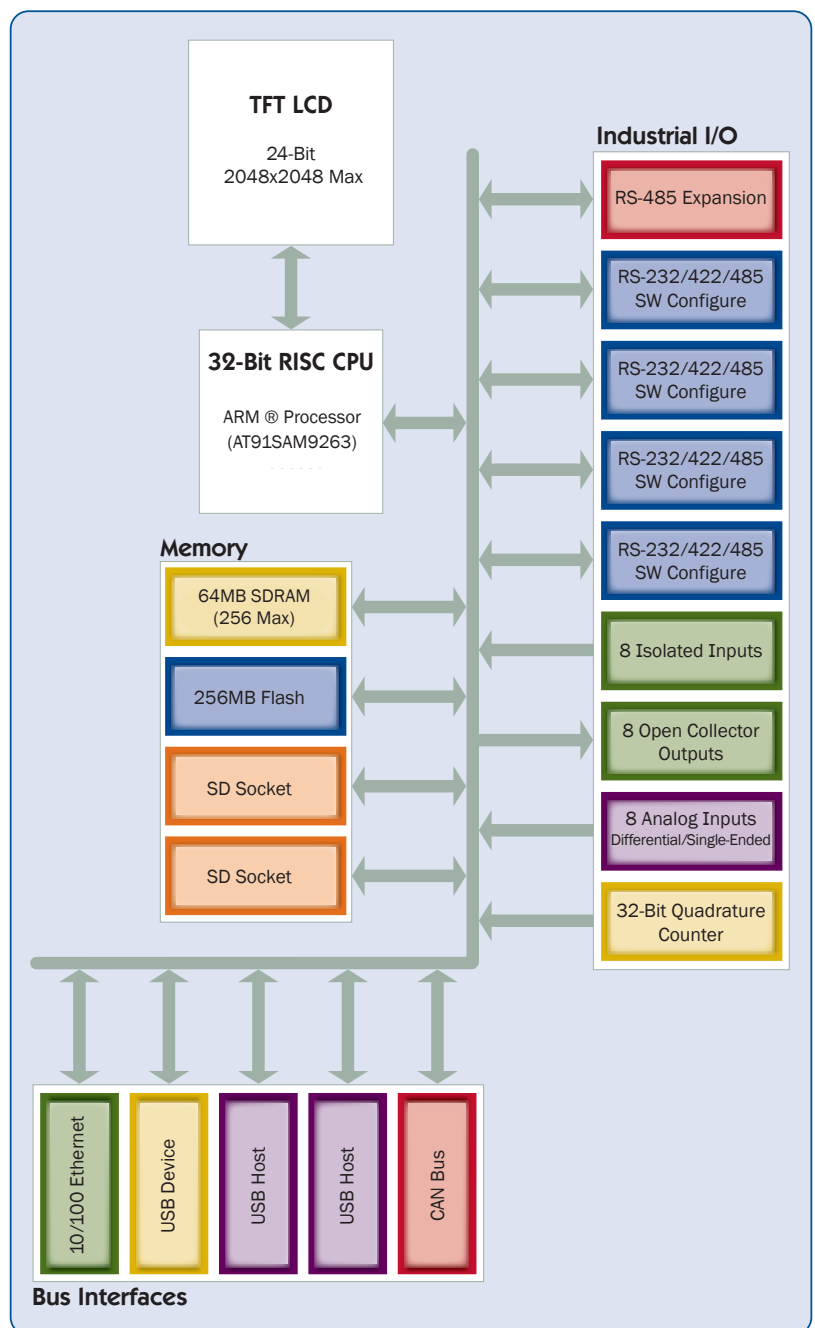
Environmental

- > 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



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www.sealevel.com > Tel: 864.843.4343 > sales@sealevel.com