Relio R3 Configurable 3U Rackmount Industrial Computer

Part: R3-Config | **Model:** Relio R3

The Relio R3 is a solid-state 3U rackmount computer designed for industrial and commercial applications requiring high reliability, maximum I/O expansion, scalable processing, and a long product life cycle.

Building on the advantages of COM Express architecture, the R3 features an Intel Atom® N2800 1.8GHz dual-core processor with 4GB RAM. The system requires low power consumption while operating fanless over a wide operating temperature range of 0°C to 50°C. Standard features include dual Gigabit Ethernet, four SeaLATCH locking USB 2.0 ports, three serial ports, DisplayPort video, and audio interfaces. The system includes a 7" LCD touchscreen on the front panel for a convenient operator interface.

With a total of 18 SeaRAQ™ I/O expansion slots, the R3 offers unprecedented expansion capabilities supporting a variety of real-world analog I/O configurations such as A/D inputs, 4-20mA outputs, 0-20mA inputs, thermocouples, and RTD inputs. Optically isolated inputs, relay outputs, and additional serial interfaces are also available. The system offers one PCI Express slot compatible with any half-length PCIe x1 board.

The Relio R3 operates from your choice of 2.5" SATA solid-state disk (SSD) that can be integrated and preloaded with Microsoft Windows or Linux 32-bit operating systems. Operating from solid-state disk, the system is perfect for industrial and commercial rackmount environments including process control, test & measurement, and HMI applications.

Extended temperature range and other options are available. If you have application-specific requirements, call today to discuss a Sealevel custom COM Express solution.

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Features & Specifications
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Features

- 3U rackmount enclosure with powder-coated finish
- Silent solid-state design with no fans or other moving parts
- Wide temperature operation from 0°C to 50°C ambient
- COM Express Type 6 Module supports Intel dual-core Atom processors
- Up to 4GB DDR3 RAM
- Internal 2.5" drive bay is perfect for optional solid-state disk (SSD) applications
- Integrated graphics supporting DirectX and OpenGL 3.x
- Eighteen expansion slots for optional analog, digital and serial I/O
- One PCI Express x1 half-length expansion slot
- Supports ACPI power management

Enclosure Front

- Integrated 7" LCD touchscreen operator interface
- Stereo audio line-in and line-out via standard 1/8" speaker connectors
- Two SeaLATCH locking USB 2.0 ports
- LED status indicators for power and disk activity
- On/Off power switch

Enclosure Rear

- Eighteen I/O expansion slots for optional analog, digital and serial I/O
- One PCI Express half-length x1 slot
- Two 10/100/1000BaseT RJ45 Gigabit Ethernet ports with status LEDs
- Two SeaLATCH locking USB 2.0 ports
- Three DB9M serial ports (COM1,2 = RS-232, COM3 = RS-485)
- One DisplayPort 1.1 digital video connector (supports optional active analog VGA adapters)

18-36 VDC power input via 4-pin removable terminal block**What's In the Box?**

- Relio R3 rackmount computer
- 100-240 VAC to 24 VDC @ 3.75 A, 90 Watt desktop power supply (Item# TR139), with attached Molex 39-01-2040 connector
- NEMA 5-15P US power cord, 72-inch length (Item# CA248)
- Optional cables and solid-state storage available as accessories

Specifications

Family	Relio
CPU	Intel Atom N2800 1.8GHz Dual-Core
Chipset	Intel NM10 Express, Intel QM77 Expres
BIOS	AMI Aptio EFI with CMOS Backup in 16MB SPI Flash, AMI Aptio UEFI
Max RAM	4GB DDR3 1066MHz via 204-pin SODIMM Slot
Display Support	DisplayPort 1.1
Networking	Dual Gigabit Ethernet
Expansion Slots	18 SeaRAQ I/O Slots,One PCI Express x1 SlotOne PCI Express Half-Size Mini Card for Optional Wireless or Other Capabilities
USB 2.0 Ports	Four SeaLATCH Locking USB
Serial Ports	Two RS-232, One RS-485
Power Requirement	18-36 VDC (Max. 120W)
Operating Temperature	0°C to 50°C (32°F to 122°F)
Storage Temperature	-20°C to 80°C (-4°F to 176°F)
Humidity Range	10 – 90% Relative Humidity, Non-Condensing
Dimensions	19.0" (L) x 8.0" (W) x 5.2" (H)