

## Relio R1 Industrial Computer Compact, Rugged, and Configurable

Part: RI-Config Model: Relio R1

Sealevel takes COM Express architecture to extremes with the Relio R1 industrial computer, featuring your choice of quad, dual and single-core Intel Atom® (Bay Trail) processor with up to 8 GB of DDR3L RAM, or powerful dual-core Intel Core i5-6300U (Skylake-U) processor with 8 GB of DDR4 RAM, in a virtually indestructible, DIN Rail compatible enclosure. The R1 is Sealevel's most rugged computer to date, designed to exceed military specifications for shock and vibration.



The Relio R1 achieves an impressive operating temperature range of -40°C to 71°C, while requiring low power consumption from your 18-36 VDC source. Standard features include two software-selectable serial ports, dual Gigabit Ethernet, four SeaLATCH™ locking USB ports, digital and analog video interfaces. The 802.11 b/g/n dual-band wireless network option enables convenient connectivity at data rates up to 300 Mbps. CAN bus 2.0b and GPS options are also available.

Inside the R1, a CFAST SATA II card slot provides solid-state storage that can be preloaded with 32-bit or 64-bit versions of Microsoft Windows or Linux operating systems. The optional, rugged DIN Rail bracket allows secure mounting to 35mm DIN Rail located inside panels, vehicles or even heavy equipment and drilling rigs. The optional VESA bracket supports 75mm or 100mm installation to industrial and commercial displays, and also doubles as a wall or table mount. The system is perfect for harsh industrial environments including military, oil & gas, transportation, energy, and process control applications.

The COM Express design allows easy technology migration as processor technology evolves. As a result, the COM module can be upgraded to increase performance over the life of the application.



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# Relio R1 Industrial Computer

## Compact, Rugged, and Configurable

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### Features

- Compact, extreme rugged, anodized aluminum enclosure
- Zero maintenance — silent, solid-state design with no fans or other moving parts
- Designed to exceed military shock and vibration specifications
- Wide temperature operation from -40°C to 71°C (-40°F to 160°F) ambient
- COM Express Type 6 Compact Module supports single, dual and quad-core Intel Atom (Bay Trail) processors
- Up to 8 GB DDR3L RAM
- Internal CFAST slot is perfect for solid-state disk (SSD) applications
- Internal Mini PCI Express full-length slot supports optional CAN, wireless, GPS and other expansion options
- Integrated 7th generation Intel graphics hardware

### Enclosure Front

- Choice of digital (DVI-D, HDMI or DisplayPort) and analog (VGA) display options
- Two 10/100/1000BaseT RJ45 Gigabit Ethernet ports with status LEDs
- One SeaLATCH locking USB 3.0 port
- Pushbutton LED power switch

### Enclosure Left

- One High-Retention, SeaLATCH Locking USB 2.0 Port
- 18-36 VDC power input via 2-pin removable terminal block

### Enclosure Right

- Two High-Retention, SeaLATCH locking USB 2.0 ports
- Two serial ports via 6-pin removable terminal block (Supports 2-wire RS-232 or RS-485)

### Enclosure Rear

- Optional, rugged shock & vibration resistant DIN Rail bracket
- Threaded mounting holes for additional mounting options

### What's In the Box?

- Relio R1 industrial computer
- Optional cables, power supplies and other items available as accessories

## Specifications

### Family

- Relio

### CPU Type

- Intel Atom, Intel Core i5

### CPU

- 1.91 GHz Quad-Core Intel Atom E3845, 1.46 GHz Dual-Core Intel Atom E3826, 1.46 GHz Single-Core Intel Atom E3815, 2.4/3.0 GHz Dual-Core Intel Core i5-6300U

### Max RAM

- 4 GB Non-ECC DDR3L 1067 MHz (Atom E3815), 8 GB Non-ECC DDR3L 1067 MHz (Atom E3826), 8 GB Non-ECC DDR3L 1333 MHz (Atom E3845), 8 GB Non-ECC DDR4 2133 MHz (Core-i5-6300U)

### BIOS

- AMI EFI with CMOS Backup in 8 MB SPI Flash

### Serial Ports

- Two 2-Wire RS-232 or RS-485

### USB 2.0 Ports

- Three High-Retention, SeaLATCH Locking USB

### USB 3.0 Ports

- One SeaLATCH Locking USB

### Networking

- Dual Gigabit Ethernet, Optional Wi-Fi (802.11 b/g/n, only approved for US & Canada)

### Display Support

- Choice of Digital (DVI-D, HDMI or DisplayPort 1.1) and Analog (VGA)

### Max Video

- WQHD 2560x1600 @ 60Hz

### Expansion Slots

- Mini PCI Express Full-Length Card for Optional CAN Bus 2.0b, Wireless 802.11 b/g/n, GPS or Other Capabilities

### Power Requirement

- 18-36 VDC (12W Typical; Max 25W)

### Operating Temperature

- -40°C to 71°C (-40°F to 160°F)

### Extended Temperature

- Call for Options

### Storage Temperature

- -40°C to 85°C (-40°F to 185°F)

### Humidity Range

- 10 – 90% Relative Humidity, Non-Condensing

### Shock Rating

- Meets/exceeds military standards

### Vibration

- Meets/exceeds military standards

### Dimensions

- 6.64" (L) x 5.19" (W) x 1.90" (H)