



# Relio R2 4-Port Synchronous Serial Server - Configurable Solid-State Industrial Computer

**Part:** R201-Config | **Model:** Relio R2 Synchronous Serial Server

The Relio R2 Sync Server is a rugged, solid-state industrial computer designed for applications requiring synchronous communications, small size, high reliability, powerful processing, and a long product life cycle.

The Relio R2 Sync Server combines powerful processing with robust synchronous communications that are perfect for radar, satellite, and other military applications. The system is compliant with MIL-STD-810 shock and vibration specifications.

The R2 Sync Server features four synchronous serial ports using the popular Zilog Z85230 ESCC. Each synchronous channel is individually configurable for RS-232, RS-422, RS-485, RS-530/530A or V.35. In RS-232 mode, all common modem control signals are implemented for compatibility with a wide range of peripherals. Each port is capable of data rates to 128K bps in burst mode and each port includes a digital phase lock loop (DPLL).

Software support, critical for successful synchronous communication development, is provided through Sealevel's SeaMAC synchronous serial driver. HDLC/SDLC protocols are supported as well as certain configurations of Monosync, Bi-sync, and Raw modes.

The R2 Sync Server is available from stock featuring an Intel dual-core Core i3 1.6GHz processor with 8GB DDR3 RAM that requires low power and operates fanless over a wide operating temperature range of 0°C to 50°C. The system supports up to 16GB DDR3 RAM and is available with a Core i7 processor. Sealevel can preload 64-bit versions of Microsoft Windows or Linux operating systems on the included 64GB mSATA solid-state disk (SSD).

For easy implementation, a fan-out cable is included that terminates the system's 100-pin SCSI-style connector to four DB-25M connectors. Terminal blocks, adapter cables other helpful accessories are available to simplify installation. Included brackets allow for versatile mounting to walls, under counters or on tabletops.

Building on the advantages of COM Express architecture, the R2 Sync Server provides a long product life cycle and can be easily customized to match your specific I/O requirements. If you have application-specific requirements, call today to discuss a Sealevel custom COM Express solution.

## Features & Specifications

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### Features

- Compact, rugged 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 Core i3 and Intel dual-core and quad-core i7 processors
- Up to 16GB DDR3 RAM
- Four RS-232, RS-422, RS-485, RS-530/530A, V.35 synchronous serial ports (uses Zilog Z85230 ESCC)
- Internal PCI Express Half-Size Mini Card slot for mSATA SSD or other capabilities
- Integrated graphics supporting DirectX and OpenGL 3.x
- Supports ACPI power management

#### Enclosure Front

- 100-pin SCSI-style connector for synchronous serial ports
- ATX style push button power switch

#### 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

- Two 10/100/1000BaseT RJ45 Gigabit Ethernet ports with status LEDs
- Two high-retention USB 2.0 ports
- One DisplayPort 1.1 digital video connector (supports optional active analog VGA adapters)
- 18-36 VDC power input via 4-pin connector

#### What's In the Box?

- Relio R2 Synchronous Serial Server
- 100-240 VAC to 21 VDC @ 3A external power supply with US power cord
- CA339 fan-out cable with 100-pin connector to four (4) DB25M connectors
- Set of mounting brackets
- Cables and other items available as accessories

### Specifications

<b>Family</b>	Relio
<b>CPU</b>	Intel Core i3-3217UE Dual-Core Intel Core i7-3517UE Dual-Core Intel Core i7-1185GRE Quad-Core
<b>BIOS</b>	AMI Aptio UEFI
<b>Max RAM</b>	16GB ECC DDR3 1333/1600 MHz via Two 204-pin SODIMM Slots
<b>Display Support</b>	DisplayPort 1.1
<b>Networking</b>	Dual Gigabit Ethernet
<b>Max Video</b>	QXGA 2048×1536 @ 60Hz
<b>Expansion Slots</b>	PCI Express Half-Size Mini Card for mSATA SSD or Other Capabilities
<b>USB 2.0 Ports</b>	Two High-Retention USB
<b>Serial Ports</b>	Four RS-232, RS-422, RS-485, RS-530/530A, V.35 Synchronous Serial Ports (Zilog Z85230 ESCC)
<b>Power Requirement</b>	18-36 VDC (Max. 120W)
<b>Operating Temperature</b>	-0°C to 50°C (32°F to 122°F)
<b>Storage Temperature</b>	-20°C to 80°C (-4°F to 176°F)
<b>Humidity Range</b>	10 – 90% Relative Humidity, Non-Condensing
<b>Shock Rating/ Vibration</b>	20g, 25ms 2.0 GRMS, 5 Hz to 500 Hz
<b>Dimensions</b>	7.820" (L) x 4.744" (W) x 2.672" (H)