



Relio™ R1 Edge Industrial Computer

Part: R173-config and R154-config | **Model:** R1 Edge*

The R1 Edge is the latest addition to the industry-leading Relio embedded computer line. The R1 Edge incorporates the newest generation of industrial processors and a modernized video interface. With versatile communication options like (2) 2.5 Gigabit Ethernet ports, Cellular 4G LTE, Wi-Fi 6E, and (2) RS-232/422/485, the R1 Edge features (1) USB C port, (2) locking USB 3.1 ports, (2) locking USB 2.0 ports, (2) DisplayPorts, Audio Line-In /Out 3.5mm ports, and an extreme, wide operating temperature range of up to -40°C to +60°C.

Rugged Reliability

The R1 Edge has an extremely rugged, anodized aluminum enclosure combined with intentional thermal management for unmitigated performance under environmental extremes. The fanless, solid-state design, combined with locking SeaLATCH USB connectors, ensures shock and vibration tolerance as well as long-term reliability.

Configurable I/O & Future-Proof Architecture

Versatile communication comes standard with the R1 Edge, including options like Cellular 4G LTE, Wi-Fi 6E, RS-232/422/485, and 2.5 Gigabit Ethernet. With a robust and flexible I/O mix, this rugged industrial computer is capable of managing a variety of data inputs to interface with legacy systems and the most advanced peripherals, all from the edge. The embedded computer's COM Express architecture allows for technology migration to easily change, and upgrade, the CPU functionality without a complete system redesign or replacement.

Software Flexibility & Fast Deployment

Inside the R1 Edge, a M.2 SATA III SSD slot provides solid-state storage ranging from 128GB to 1TB. The R1 Edge is compatible with Windows 10 IoT Enterprise, Windows 11 Pro, Linux RHEL 8 (or later), and Linux Ubuntu 21 (or later). The system is also Windows 11 IoT-ready to provide maximum flexibility for evolving, customer-specific software applications. Sealevel's SeaCOM hardware driver is included to provide system I/O. Serial application code samples assist with custom application development and complete support documentation expedites configuration.

Features & Specifications

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Features

- **Built to be Forgotten** – Reliable enough to run mission-critical applications without constant attention.
- **Carrier-Ready** – 4G models pre-certified for AT&T, T-Mobile, Verizon networks.
- **Deployment-Grade Ruggedness** – Extreme environmental tolerance, fanless anodized aluminum design, SeaLATCH locking connectors.
- **Connectivity Without Compromise** – Ethernet, 4G, Wi-Fi 6E, serial, USB-C all in one compact rugged package.
- **U.S. Manufacturing** – AS9100D certified, 39+ years engineering excellence.



Specifications

Computer	Relio R1 Edge
CPU	Intel® Core™ i7-1185GRE CPU Intel® Core™ i5-1145GRE CPU
Max RAM	64 GB
Storage	(1) mSATA Drive up to 1TB (Not Included)
OS	Windows 10 IoT Enterprise Windows 11 Pro Windows 11 IoT - Ready Linux Ubuntu 22 (or later)
Display Support	(2) DisplayPorts
Networking	(2) 2.5 Gigabit Ethernet Ports (1) M.2 4G LTE Cellular slot – 2 Antennas (optional) (1) M.2 Wi-Fi 6E – 2 Antennas (optional)
Serial Ports	(2) Full RS-232/422/485 Ports
Audio	Mic In/Line Out
Modem	4G (2 Antennas, Wi-Fi 6E)
USB 3.0 Ports	(2) SeaLATCH Locking USB 3.1 Type A Ports
USB 2.0 Ports	(2) SeaLATCH Locking USB 2.0 Type A Ports
USB C Ports	(1) SeaLATCH Locking USB Type C Port
Operating Temperature	-40°C to 71°C (-40°F to 160°F)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Humidity Range	10 – 90% Relative Humidity, Non-Condensing
Dimensions	6.64" (L) x 5" (W) x 1.9" (H)