



# Relio R1 Rugged Industrial Computer

**Part:** R1541600-DPDV, R1541601-DPDV, R1541602-DPDV, R1543200-DPDV, R1543201-DPDV, R1543202-DPDV

**Model:** Relio R1 Rugged - Intel® Core™ i5-1145GRE (Tiger Lake)

The Relio™ R1 Rugged Industrial Computer is the latest addition to the industry-leading Relio embedded computer line. The R1 Rugged incorporates the newest generation of industrial processors and a modernized video interface. With versatile communication options for CAN, Wi-Fi, and RS-232/485, the R1 Rugged features (2) locking USB 3.1 ports, (2) locking USB 2.0 ports, (2) Gigabit Ethernet ports, and an extreme, wide operating temperature range of -40°C to 60°C.

## Rugged Reliability

The Relio R1 Rugged Industrial Computer has an extreme 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 Rugged, including CAN, Wi-Fi, RS-232/RS-485, and Ethernet capability. 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. 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 Rugged, a CFAST SATA II card slot provides solid-state storage ranging from 64GB to 256GB. The R1 Rugged 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 SeaCOM hardware drivers are included to support 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

- Newest generation of industrial processors available
- Versatile communication with CAN, Wi-Fi, and RS-232/485
- COM Express Type 6 Architecture for future-proof performance and configuration
- Solid-state design and thermal management to outlast shock & vibrate and temperature extremes



#### Specifications

<b>Family</b>	Relio
<b>CPU Type</b>	Intel® Core™
<b>CPU</b>	Intel® Core™ i5-1145GRE
<b>OS</b>	Windows 10 IoT Enterprise Windows 11 Pro Windows 11 IoT - Ready Linux RHEL 8 (or later) Linux Ubuntu 21 (or later)
<b>BIOS</b>	congatec BIOS
<b>Max RAM</b>	64GB
<b>Display Support</b>	DVI-D and DisplayPort
<b>Networking</b>	(2) Gigabit Ethernet Ports
<b>USB 3.0 Ports</b>	(2) High-Retention, SeaLATCH Locking USB 3.1 Ports
<b>USB 2.0 Ports</b>	(2) High-Retention, SeaLATCH Locking USB 2.0 Ports
<b>Serial Ports</b>	(2) 2-Wire Software Selectable RS-232/RS-485 Ports
<b>Power Requirement</b>	18-36VDC (25W Typical; Max 50W)
<b>Operating Temperature</b>	-40°C to 60°C (-40°F to 140°F)
<b>Storage Temperature</b>	-40°C to 85°C (-40°F to 185°F)
<b>Humidity Range</b>	10 – 90% Relative Humidity, Non-Condensing
<b>Dimensions</b>	6.64" (L) x 5" (W) x 1.9" (H)