



CRYSTAL™

SPECS

Crystal Group AVC0161 AI & Autonomy Solution



Accelerate artificial intelligence, automation and autonomous projects. Put advanced projects on the fast track to market with Crystal Group AVC0161, designed specifically to reduce development time and streamline systems integration.

AVC0161 combines impressive compute power, data-handling capabilities and storage capacity in a rugged solution that can withstand harsh conditions and demanding environments—including potholes, collisions, shock and vibration, and extreme temperatures that can cause traditional systems to fail. Available in custom or off-the-shelf configurations, this high-performance computer optimizes the latest Intel® Xeon® processors, high-capacity DDR4 memory, and sophisticated power and thermal management stabilized in a size, weight, and power (SWaP)-optimized aluminum chassis.

Solution Benefits

High compute and storage. Road-ready and flexible, the AVC0161 delivers real-time situational awareness and pinpoint accuracy with dual Intel Xeon scalable processors housed in a rugged, aluminum enclosure.

Faster time to market. Our scalable systems put AV/ADAS projects into high gear with off-the-shelf and customizable computer systems, development kits, and integration services for a complete turn-key solution.

Trusted and reliable. Rugged electronics and services from Crystal Group are trusted by military and industry leaders for defense, aerospace, industrial, critical infrastructure, and commercial applications, including AVs for some of the world's largest OEMs.

Proven performance. Tested and proven to perform unparalleled sensor fusion per watt of power and operate on standard automotive voltages in mobile environments where other systems fail.

Speed, agility, quality and support. Crystal Group's 5+ year warranty, quick lead time and global network provide fast and effective support around the clock and around the world.

FEATURES

- 10-32 VDC input power
- Up to four GPUs supported
- Two removable 2.5" 15mm drives or three removable 9.5mm drives
- Lightweight aluminum construction 30-40 lbs.
- Open-loop cooling system kit available
- Intel® Xeon® Scalable processors
- Up to 2 TB DDR4 memory
- Expandable with up to six PCIe slots

A clear advantage.

Specifications

Mechanical

Height: 6.5" (16.5 cm)
 Width: 14.1" (35.8 cm) EIA-310 rack compliant
 Depth: 15.6" (39.6 cm)
 Weight: 30-40 lbs. (13.6-18.1 kg) [content dependent]

CPU

Intel® CPU architecture options from Intel embedded long-life roadmap

Intel® Xeon® Scalable processors

Expansion

Up to six PCIe; configuration motherboard dependent

External Bay

Standard: Three removable 7mm SATA 2.5" SSDs

Optional: Two removable 15mm NVME 2.5" SSDs

Memory

Up to 2TB registered DDR4, configuration motherboard dependent

Power Supply

Standard: 1500W 10-32VDC, Amphenol PowerLock™ Series 300 connectors

Optional: 2000W 10-32VDC, Amphenol PowerLock™ Series 300 connectors

Environmental Standards

Operational temperature: -40°C to +55°C. Expanded temperature ranges available.

Storage: -40°C to +85°C

Humidity: 5-95%; 240 hours

Altitude: 12,500ft operation, 40,000ft transport

Shock: 25G 10ms 400 shocks in each direction in each axis 2400 shocks total

Vibration: 2.0Grms 10Hz-1000Hz 13.5 hours in each axis

MIL-STD-810, Shock, Method 516, Procedure I/V: 20 G, 11ms

Cooling

System liquid cooled; redundant internal low noise fans circulate air through chassis to cool components not directly cooled by liquid

Optional bench top lab cooling kit

System Board

Multiple motherboard options from Advantech

Mounting

Mounting provisions on chassis; we can create custom mounting for your application

Customization

Customization of all components and vehicle integration services are available



Computer



**Pump
(Optional)**



**Radiator
(Optional)**

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