Accelerate artificial intelligence, automation and autonomous projects. Put advanced projects on the fast track to market with Crystal Group AVC1539, designed specifically to reduce development time and streamline systems integration.

The AVC1539 combines impressive compute power, data-handling capabilities, and storage capacity in a compact, rugged solution that can withstand harsh conditions and demanding environments—including potholes, collisions, shock and vibration, and extreme temperatures that cause traditional systems to fail. Available in custom or off-the-shelf configurations, the AVC1539 high-performance computer optimizes the latest Intel® Xeon® processors, high-capacity DDR4 memory, and leading edge thermal management in a rugged chassis.

Solution Benefits

High compute and storage. Road-ready and flexible, the AVC1539 delivers real-time situational awareness and pinpoint accuracy using Intel Xeon scalable processors housed in a compact, carbon fiber chassis.

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.

A clear advantage.

FEATURES

- Compact construction – 6"H x 15.4" W x 9.6"D footprint
- Less than 12 lbs
- Up to 16 Xeon D-21xx processing cores
- Up to three NVMe SSDs or six SATA SSDs
- 10-36 VDC power input

- Up to 256GB DDR4 memory
- Bulkhead, tray, or floor mounting options
- Expandable with multiple PCIe, mPCIe, and M.2 interfaces
- Four 1Gb Ethernet, two 10Gb Ethernet, two SFP+

Specifications

Mechanical

Height: 6" (15.24 cm)
Width: 15.4" (39.11 cm)
Depth: 9.6" (24.38 cm) excluding connectors
Weight: 10.3-12.0 lbs. (4.7-5.4kg)
Power: 100-150W with select configurations; CPU dependent

Expansion

Two PCIe 3.0 full height, half length expansion slots
One Mini-PCIe
One M.2 M-key 2280
One M.2 B-key 3042

External Bay

Standard: Six removable 7mm SATA 2.5" SSDs
Optional: Three removable 15mm NVME 2.5" SSDs

Cooling

Air cooled via three high durability 92mm chassis fans

Mounting

Tray, bulkhead, or floor mounted with optional mounting kits

Software Compatibility

Windows® 10, Server 2019®, RHEL® 6.8/7.1/7.2, Ubuntu® 18/20, or CentOS® 7.1

Environmental Standards

Operational temperature: -40°C to +60°C[1]
Storage: -40°C to +85°C[1]
Humidity: 240 hours with humidity kit[1]
Altitude: 12,500ft operation, 40,000ft transport[1]
Vibration: 5.5G, 5-2,000Hz, 60 min/axis, 3 axis[1]

Electromagnetic Compatibility Standards

Some standards may require an internal kit
MIL-STD-461, CE102, RE102[1]

Power Supply

Standard: 500W 10-36VDC

System Board

Option 1: X11SDV-4C-TP8F
Option 2: X11SDV-8C-TP8F
Option 3: X11SDV-12C-TP8F
Option 4: X11SDV-16C-TP8F

Configurable I/O

Tesla T4 GPU
Quadro A2000 GPU
CAN bus FD
Intel Movidius Myriad X AI module
WiFi / LTE / GPS
802.3af PoE

1 - Testing in progress

AS9100D CERTIFIED ISO 9001