



**Accelerate artificial intelligence, automation and autonomous projects.** Put advanced projects on the fast track to market with Crystal Group AVC1312, designed specifically to reduce development time and streamline systems integration.

The AVC1312 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 AVC1312 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 AVC1312 delivers real-time situational awareness and pinpoint accuracy with an Intel Xeon scalable processor 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.

#### **FEATURES**

- Lightweight composite construction, 4.5"H x 12"W x 9"D footprint (6-8lb)
- Six Xeon D processing cores
- 10-18 VDC power
- Up to 128GB ECC DDR4
- Two removable 2.5" 15mm drives or three removable 9.5mm drives
- MIL-STD-461 CE102, RE102 compliant
- Bulkhead or tray mounted options

*A clear advantage.*

## Specifications

### Mechanical

Height: 4.5" (11.43 cm) max  
 Width: 12" (30.48 cm)  
 Depth: 9" (22.86 cm) excluding connectors  
 Weight: 6.3-8.5 lbs. (2.9-3.86kg)  
 Power: 55-80W with select configurations, CPU dependent

### Expansion

One PCIe 3.0x16 low profile expansion bay

### External Bay

Up to three SATA 2.5" SSD (externally removable)

### Cooling

Three high-reliability 60mm fans

### Mounting

Tray or bulkhead mounted using ears supplied

### Environmental Standards

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

### Electromagnetic Compatibility Standards

Some standards may require an internal kit

MIL-STD-461, CE102, RE102<sup>2</sup>

### Power Supply

Standard: 144W 10-18VDC

### System Board

X10SDV-6C-TLN4F, FCBGA 1667, Mini-ITX, Xeon-D 1528, 6 Cores, 2x 1GB LAN, 2x 10G LAN, 1x PCI-E 3.0 x 16

### Software Compatibility

Windows® 10, Server 2019®, RHEL® 6.6/6.7/7/7.1, Ubuntu® 18/20, or CentOS® 7.1, VMware®



1 - Test report available  
 2 - Designed to meet standard

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