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RUGGED SOLUTIONS



AWS EVO

ADVANCED MISSION COMPUTER WITH DUAL REMOVABLE DISK

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AWS EVO

Advanced Mission Computer with Dual Removable Disk

The **AWS EVO** is a high performance Rugged Mission Computer built for heavy edge workloads and multi-media applications. Featuring multiple display control and audio interfaces, the **AWS EVO** is SWaP-C optimized and has a fanless design with no external airflow prescriptions.

The **AWS EVO** features an high end eight-Core 11th Gen Intel® Xeon® W Processor (Tiger Lake) or a powerful Hexa-Core 9th Gen Intel® Xeon® E Processor (Coffee Lake Refresh) and 32GB DDR4 dual-channel memory to provide an excellent overall performance. Video outputs include three independent ports (2x HDMI + 1x VGA) while input/output ports offer Audio, 4x Gigabit Ethernet ports, 2x USB 3.0 ports and 4x USB 2.0 ports, PS/2, 4x COM ports and 2x SATA 6 Gb/s ports with RAID support.

The **AWS EVO** comes with several storage options: an internal mSATA module, a Type II CFlash slot accessible from the front panel and two front-mounted hot-swappable SATA ports suitable for the installation of two 2.5" SSDs with Secure Erase option. An internal MiniPCI Express slot is available for further expansion in alternative to the mSATA option.

The **AWS EVO** is compliant to MIL-STD-810G certifications and to RTCA/DO-160G.

- **SWaP-C optimized**
- **Fanless design**
- **11th / 9th Gen Intel® Processor**
- **Triple display support + Audio**
- **2x removable SSD, CFast and mSATA**
- **MIL grade qualifications**

Member of CISQ Federation RINA CERTIFIED MANAGEMENT SYSTEM EN 9120

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Technical Specifications

System	
Processor Module	9th Gen Intel® Xeon® E-2276ML, 2.0/4.2GHz, 12MB, 6C/12T 11th Gen Intel® Xeon® W-11865MRE 2.60 GHz, 24MB, 8C/16T
Memory	2x 16GB Dual channel 2133/2400 MHz DDR4 memory in dual SODIMM sockets; ECC / non ECC support (9th Gen) 2x 32GB Dual channel 2933MT/s DDR4 memory; ECC / non ECC support (11th Gen)
Video Outputs	3 independent and simultaneous displays (2x HDMI, 1x VGA)
Ethernet	1x 10/100/1000 GbE LAN interface with I219 controller 3x 10/100/1000 GbE LAN interfaces with I210 controller
Serial	4x programmable serial ports RS232/RS422/RS485
USB	2x USB 3.0 on the front panel (Omnetics Quick Lock USB 3.0 Micro-D connectors) 2x USB 2.0 (on MIL-DTL-38999 connector) 2x additional USB 2.0 ports type A standard receptacles internally available (maintenance)
PS/2	2x PS/2 for keyboard and mouse
Audio	Intel® HD Audio integrated in chipset 1x AUDIO IN (left/right) 1x AUDIO OUT (left/right)
I/O Expansion	4x discrete inputs 1x MiniPCI Express slot for additional interfaces such as MIL-STD-1553 or ARINC-429 Additional I/O routed on J2 connector
Internal Storage Devices	1x mSATA slot
Removable Storage Devices	2x removable 2.5" SATA SSD with secure erase option 1x removable CFast card
Software	Windows 11, Windows 10, Linux 64-bit

Power Section	
Power Input	28V nominal (15 to 36 Vdc continuous range). Input tolerance according to MIL-STD-704F
Power Consumption	80W
Features	Tolerant to power interruptions up to 50ms (integrated hold-up module) Over voltage protection Over current protection Input transient protection

Mechanical Features	
Dimensions (W x D x H)	256.0 mm x 203.0 mm x 116.0 mm
Weight	5.3 Kg
Cooling	Fanless design, no external forced airflow is required
Interfaces	3x MIL-DTL-38999 Military circular connectors 2x USB 3.0 Quick Lock USB 3.0 Micro-D connectors 2x HDMI (with mating retention via custom backshell)

Environmental Features	
Operating Temperature	-45°C / +70°C (RTCA/DO-160G Section 4, Category B2)* *CFast configuration limited to -20°C / +55°C (RTCA/DO-160G Section 4, Category B1)
Storage Temperature	-40°C / +85°C (RTCA/DO-160G Section 4, Category B2 with deviation)
Temperature Variation	Compliant to RTCA DO-160G Section 5, Category B
Altitude	Operative: max 25.000 feet (RTCA/DO-160G Section 4, Category B2)
Humidity	Up to 95% (RTCA/DO-160G Section 6, Category A)
Shock	6g shock, 11ms (RTCA/DO-160G Section 7, Category A)
Crash Safety	20g shock, 11ms (RTCA/DO-160G Section 7, Category B)
Vibrations	Rotary wing: qualified according to RTCA/DO-160G Section 8, Category U Curve G Fixed wing: qualified according to RTCA/DO-160G Section 8, Category S Curve M
Waterproofness	Compliant to RTCA/DO-160G, Section 10, Category W
Fungus Protection	Compliant to RTCA/DO-160G, Section 13, Category F
EMI / Electrical Features	Compliant to RTCA DO-160G, Sections 15, 17, 18, 19, 20, 21, 25 Compliant to MIL-STD-704F (Power Input and 50ms hold-up)

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