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RUGGED SOLUTIONS



AWS EVO-SDI

ADVANCED MISSION COMPUTER WITH DUAL REMOVABLE DISK AND HD-SDI INPUT

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AWS EVO-SDI Advanced Mission Computer with Dual Removable Disk and HD-SDI Input

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The **AWS EVO-SDI** is a high-performance Rugged Mission Computer designed for heavy edge workloads and real-time video processing applications. Featuring an HD-SDI video input alongside HDMI and VGA outputs, the **AWS EVO-SDI** is SWaP-C optimized with a fanless design that requires no external airflow.

The **AWS EVO-SDI** features a high-end eight-Core 11th Gen Intel® Xeon® W Processor (Tiger Lake) with 32GB DDR4 dual-channel memory to provide excellent overall performance. Its video interfaces include 1x HDMI output and 1x VGA output, enabling seamless integration with high-resolution sensors and situational awareness systems. Additionally, it supports a 1x HD-SDI input with flexible capture up to 1080p30 to interface directly with rugged imaging systems, enabling low-latency, high-quality, long-distance video transmission and processing - critical for situational awareness, real-time analysis, and operational reliability.

The system provides robust connectivity, including 4x Gigabit Ethernet ports, 2x USB 3.0, 4x USB 2.0, PS/2, 4x COM ports, and 2x SATA 6 Gb/s ports with RAID support. For storage, the **AWS EVO-SDI** offers an internal mSATA module, a Type II CFlash slot accessible from the front panel, and two front-mounted hot-swappable SATA bays supporting 2.5" SSDs with Secure Erase. An internal MiniPCI Express slot allows for further expansion in place of the mSATA module.

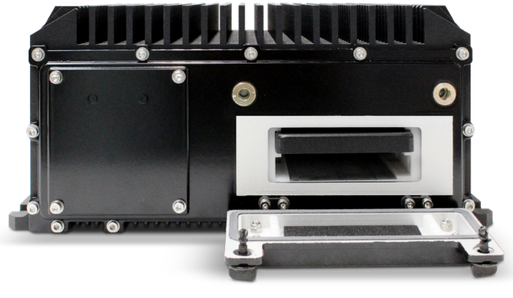
The **AWS EVO-SDI** is design to meet MIL-STD-810G and RTCA/DO-160G, ensuring reliable operation in harsh environments.

- **SWaP-C optimized**
- **Fanless design**
- **11th Gen Intel® Xeon® W Processor**
- **HD-SDI Video Input**
- **Dual display support + Audio**
- **2x removable SSD, optional CFast**
- **MIL grade qualifications**

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Technical Specifications

System	
Processor Module	11th Gen Intel® Xeon® W-11865MRE 2.60 GHz, 24MB, 8C/16T
Memory	2x 32GB Dual channel 2933MT/s DDR4 memory; ECC / non ECC support
Video Input	Digital HD-SDI input with flexible capture up to 1080p30
Video Outputs	2 independent and simultaneous displays (1x 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 connectors) 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
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 IoT Enterprise, Windows 10 IoT Enterprise, 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 1x HDMI (with mating retention via custom backshell) 1x BNC

Environmental Features (Compliant)	
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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