

Avionics' Smallest Rugged GPGPU AI Supercomputer with NVIDIA Jetson AGX Xavier System-on-Module Offered by Aitech

A178-AV provides high-speed video acquisition, high-performance AI capabilities, and a real-time operating system

CHATSWORTH, CALIFORNIA, UNITED STATES, July 8, 2024 /

EINPresswire.com/ -- Aitech Systems, a leading provider of rugged boards and system level solutions for military, aerospace and space applications, has released the [A178-AV](#), the latest

iteration of its smallest rugged GPGPU AI supercomputers available with the powerful NVIDIA Jetson AGX Xavier System-on-Module.



With its compact size, the A178-AV is the most advanced solution for artificial intelligence (AI), deep learning, and video and signal processing for the next generation of avionic platforms.

“

A small form factor AI system such as the A178-AV provides powerful, efficient, and reliable computing solutions tailored to meet the unique needs of aircraft operations across rugged environments.”

Dan Mor, Aitech Director of Products & Solutions

Its Volta GPU with 512 CUDA cores and 64 Tensor cores reaches 32 TOPS INT8 and 11 TFLOPS FP16 at a remarkable level of energy efficiency, providing all the power needed for AI-based local processing where needed, next to the sensors. The A178-AV also features two dedicated NVDLA (NVIDIA Deep-Learning Accelerator) engines providing an interface for deep learning applications.

Dan Mor, Director of Products & Solutions, of Aitech, said, “AI in avionic electronics continues to grow in complexity. A

small form factor AI system such as the A178-AV provides powerful, efficient, and reliable computing solutions ranging from low power, high-speed video acquisition, and avionic communication interfaces to high-performance AI capabilities and a real-time operating system,

tailored to meet the unique needs of aircraft operations across rugged environments.”

The A178-AV is an upgrade of Aitech’s A178 COTS system now enhanced with several new features including:

- CoaXPress (CXP)
- MIL-STD 1553
- ARINC429
- RedHawk Real Time OS

CoaXPress video input provides avionics systems with a reliable, high-bandwidth, low-latency, and cost-effective solution for transmitting video data, essential for tasks such as navigation, surveillance, pilot assistance, and situational awareness in aircraft operations.

MIL-STD-1553 and ARINC 429 protocols offer users a flexible, reliable, deterministic, and cost-effective communication solution for avionics systems, making the supercomputer well-suited for critical aerospace applications where safety, performance, and interoperability are paramount.

With extremely low latency, advanced tuning features, and real-time decision-making, RedHawk guarantees real-time performance in mission-critical applications where rapid response is crucial to mission success.

The A178-AV provides the same large storage capacity, variety of I/O interfaces and high-speed 10Gb Ethernet connectivity as the base A178 platform. The new design is testament to the adaptability of this COTS-based SFF supercomputer that can be easily customized to meet existing embedded architectures.

For more information please call 888-Aitech-8 (888-248-3248) or e-mail sales@aitechsystems.com.

[Get our updates: https://www.linkedin.com/company/Aitech](https://www.linkedin.com/company/Aitech)

About Aitech Systems:

In business for more than three decades, Aitech is one of the world’s first, independent, open systems architecture, COTS/MOTS innovators offering open standards-based boards and integrated computing subsystem products, with customization services for rugged and severe environment, military, aerospace and space applications...i.e. products for Air, Land, Sea and Space. For more information, please visit www.aitechsystems.com

Catherine Emond
Aitech Systems
+1 818-700-2000

[email us here](#)

This press release can be viewed online at: <https://www.einpresswire.com/article/725809556>

EIN Presswire's priority is source transparency. We do not allow opaque clients, and our editors try to be careful about weeding out false and misleading content. As a user, if you see something we have missed, please do bring it to our attention. Your help is welcome. EIN Presswire, Everyone's Internet News Presswire™, tries to define some of the boundaries that are reasonable in today's world. Please see our Editorial Guidelines for more information.

© 1995-2024 Newsmatics Inc. All Right Reserved.