



Mission-Critical Embedded Rugged COTS Solutions

MILITARY-AEROSPACE



Securing a Better Tomorrow



Aitech engineers and manufactures rugged, open-architecture based embedded systems for use in military, aerospace and space flight applications. By investing heavily in our people and infrastructure, we ensure that our customers have the integrated technology platforms that will meet the industry's evolving computing requirements.

As a pioneer in the field of computing technologies, Aitech provides embedded systems for the harshest, most unforgiving operating environments across the globe. The goal of every innovation the company has delivered over the past three decades is to secure a better tomorrow.

Built on a Legacy of Innovation

Aitech is renowned throughout the military and aerospace industries for being a leader in rugged embedded computing. Our strong reputation is founded on the pivotal technological and business innovations Aitech has spearheaded, including the first true military VMEbus products in mainstream defense and aerospace applications in the 1980s, as well as more recent developments, including:



AiSecure™ hardware-based cybersecurity architecture for SBCs



NVIDIA-based Ultra SFF GPGPU supercomputers for AI environments



Participation within FACE, SOSA and VITA initiatives

“As we seek to solve our customers’ challenges today and into tomorrow, we rely on our extensive heritage and intimate knowledge of rugged embedded computing for military, defense and space environments.”

– Pratish Shah, General Manager USA, Aitech

A Proven Pedigree

We’re no strangers to rugged, mobile environments or the evolving needs of our customers. Our design history holds a few notable industry milestones including delivering the first true military SAVA (Standard Army Vetronics Architecture) compliant, 6U x 160 mm VMEbus SBCs in 1985, a full three years before anyone serving this emerging market.

We’re proud that Aitech is the only company that continues to provide true Mil-Spec operational temperature performance (-55°C to +85°C) for its products through component selection, screening and pre-qualification as well as via comprehensive HASS/HALT stress testing, EMI/EMC compliance and complete programmatic qualification testing.



Products and Systems

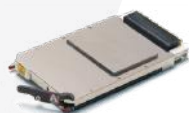
Aitech provides industry-standard, open architecture VMEbus, VPX, CompactPCI and high-speed serial fabric-based computers and subsystems. Applications for our products include mission computers and autonomous robotic subsystems for ground vehicles, surface and subsurface naval platforms, and fixed- and rotary-winged manned and unmanned aircraft.

Single Board Computers



Advanced Intel and PowerPC processing combined with VME, VPX and CompactPCI architectures that offer industry leading on-board I/O.

AI GPGPU-based Products



Leveraging the most current NVIDIA technology to address the continued growth of AI, these products, including boards as well as HPEC and SFF systems, provide the highest levels of data processing performance.

I/O Boards



Our I/O boards provide a host of options, from Ethernet, SATA II, USB, MIL-STD-1553B, ARINC-429 and CANbus to Serial, Analog, Digital, Discrete and Synchro/Resolver interfaces.

Enclosures



Our rugged enclosures are available in many sizes and footprints to accommodate standard and custom system requirements and come with Aitech power supplies and backplanes.

Ethernet Switches



High-performance managed or unmanaged Gigabit Ethernet switch boards and systems with a range of options, including Gigabit and 10 Gigabit Ethernet throughput.

Integrated Systems



By combining our design experience with our COTS products, we provide cost-effective, fully-integrated, out-of-the-box computer configurations in SWaP-optimized enclosures, including SFF solutions.

Video and Graphics



Based on an AMD GPU, our video and graphics PMC/XMC boards provide a high level of 2D/3D processing and overlay capabilities, and support popular real time operating systems such as VxWorks® and Integrity®.

Power Supplies



Aitech's power supplies offer reliable power in industry standard form factors, featuring wide input voltage ranges, high efficiency operation and thermal protection.

Memory Boards



We offer PMC, XMC and VME variants of high-speed Flash memory boards to complement any host SBC and provide high reliability solid state mass storage.

Carrier Cards and Transition Modules



Our carrier cards allow easy addition of PMC/XMC cards into your system. Available transition modules simplify the connection to I/O interfaces for air-cooled or software development systems.

Beyond Just Products

We offer program-oriented and complete customization services as well as Earned Value Management (EVM), full logistics, maintenance, P3I (Pre-Planned Product Improvement) and build-to-print services. Aitech also provides the necessary software, integration and services for the development and long-term support its customers need for their complex applications:

- Subsystem Integration Services
- COTSLifecycle+™– Obsolescence Management and Complete Product Lifecycle Support for a Minimum of 12 Years
- Built In Test (BIT) Firmware and Toolkit
- Third Party Hardware, Software and Drivers
- Technical Support Hotline and Repairs

We carefully define all manufacturing processes and tests, and ensure that our company and all our contract manufacturing partners are ISO 9001:2008 and AS9100:2009 registered. Aitech is approved per Boeing D6-82479, Addendum 2 and Appendix A with regular subsequent audits by Boeing.

Some of the Worldwide Companies We're Honored to Call Customers

Aitech's customer base includes system integrators developing products for the military and aerospace markets from around the world: Airbus Defense Systems, Ansaldo, Avio, BACE, BAE, Bharat Electronics Ltd., Boeing, CWCEC, Elbit Systems, Fujitsu, General Atomics, Hindustan Aeronautics Ltd., IAI, IMI, INPE, JPL, L3, Larsen & Toubro, LIG Nex1, Lockheed Martin, Mercury Computers, Mitsubishi, NASA, Nippon Japan Radio Corp, Rafael, Raytheon, Saab, Sagem, Selex Galileo, Selex Integrated Systems, TAI, TATA, TechMer, Thales and Toshiba.



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