Aitech's SWaP-C-optimized U-C9140 is First SOSA™ Aligned PowerPC SBC for Real-time Data Processing in Military and Defense Applications

New low power, high performance board features large on-board memory and on-board I/O capabilities with fast integration, improved time-to-market and lower risk

U-C9140 Technology Highlights & Innovations
- Industry's first and only available PowerPC-based SBC aligned to the SOSA™ Technical Standard and featuring NXP's QorIQ T1/T2 Series SoC with Secure Boot and Trust Architecture 2.0
- Wide variety of on-board I/O and large memory resources, including on-board mass storage: up to 8 GB of DDR3L and 64 GB of eMMC flash
- Out-of-the-box installation in many open standard-based real-time military and defense applications requiring superior SWaP-C optimization

Chatsworth, Calif. June 2022 – Aitech Systems, a leading provider of rugged boards and system level solutions for military, aerospace and space applications, now offers the low power U-C9140, a PowerPC-based 3U VPX single board computer (SBC) that is aligned to The Open Group Sensor Open Systems Architecture™ (SOSA) Technical Standard, Edition 1.0, providing for fast integration, improved time-to-market and lower risk.

Alex Trigoub, Director, Board Level Product Line for Aitech, commented, "This unique combination of the PowerPC CPU architecture and alignment to the SOSA Technical Standard provides excellent performance in open standards-based real-time applications.

It will also be Aitech's first SOSA aligned SBC supporting FACE™ conformant *Wind River* VxWorks 653 OS and a compliant BSP. It fulfills a market need for designers looking for lower power consumption or who may want to reuse the widely-available existing PowerPC application code."

Military and defense applications benefitting from this cost-effective SBC include mission computers, sensor signal processing, signal intelligence and electronic warfare, since it provides excellent performance per Watt. In addition, the SBC's FACE compliance (and future conformance) facilitates especially fast integration into airborne mission computers and applications.

The SOSA aligned U-C9140 is Aitech's latest generation 3U VPX PowerPC SBC, based on NXP's QorIQ T1/T2 Series SoC multi-core, multi-thread processors. For improved security assurance and protection against cyber-attacks, the U-C9140 also includes the latest QorIQ Secure Boot and Trust Architecture 2.0.

The wide variety of on-board I/O and large memory resources, including up to 8 GB of DDR3L and 64 GB of eMMC flash on-board mass storage, in combination with the powerful SoC processor, make the U-C9140 an ideal SBC for many real-time, rugged applications requiring superior SWaP-C optimization. An industry standard XMC slot provides flexibility and expandability, along with the availability, convenience and cost benefits of COTS.

About Aitech:

With 40 years of experience, Aitech is a global digital electronics manufacturer with expertise in providing reliable, rugged embedded systems for the harshest, most unforgiving environments in military, aerospace and space applications. We enable the world's leading companies to expand their most revolutionary explorations and push the boundaries of innovation across sea, land, air, and space.

We provide COTS products based on multiple open standard architectures, including SOSA, FACE, VPX, CompactPCI, etc., such as single board computers, I/O, memory and graphics boards, PMC/XMCs and sub-system enclosures, with over 100,000 boards and custom integrated systems delivered to take on the most challenging projects in the harshest environments and succeed. As a pioneer in space applications, Aitech offers proven space pedigree with trillions of miles flown in a variety of space missions without a single failure.

At Aitech, we stand behind our product and our customer to secure a better tomorrow.