

AMETEK Abaco Announces Design Win for Upgrade to SIGINT, ELINT Systems on US Air Force Aircraft

HUNTSVILLE, AL, UNITED STATES, May 19, 2021 /EINPresswire.com/ -- AMETEK Abaco Systems announces a design win with an initial value of \$211k, and a lifetime potential of \$20 million as part of an electronics intelligence (ELINT) and signal intelligence (SIGINT) capabilities upgrade for radio frequency data intelligence gathering over a distributed fleet of US Air Force aircraft. This win includes the VP460 6U VPX Direct RF Processing System and the SBC627 6U OpenVPX rugged single board computer.



The VP460 is an industry-leading Direct RF Processing System that combines an integrated Xilinx® Zynq® Radio Frequency System-on-Chip (RFSoc) and a powerful Xilinx® Virtex® FPGA for

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Pete Thompson

ultra-fast onboarding and processing of RF signals. The SBC627 features the 5th Generation Intel® Core i7 processor. Used in conjunction, the VP460 processes data, while the SBC627 acts to interface with the data received and transmit that data to the end user for further processing. The combination of the processor and single board computer delivers a cohesive system which provides for front-end RFSoc and backend post processing, data collection and algorithm management through the second FPGA on the card.

This innovative solution is the first that delivers the

combination of an RFSoc with powerful FPGA in a single card design with high-speed back plane interconnect while being ruggedized to meet the environmental performance requirements.

Pete Thompson, VP of Product Management at Abaco said, “Our innovative approach with the

VP460 and SBC627 brings the opportunity to supply an upgrade from old systems, which recorded data for later analysis, to new technology allowing for real-time processing of ELINT and SIGINT with the latest tech offerings. Delivering best in class products to assist in mission-critical operations is at the core of our commitment to supporting warfighters on land, air and sea."

Technical Overview

The VP460 is a 6U VPX RF processing system featuring the transformational Xilinx Zynq Ultrascale+™ RF system-on-chip (RFSoc) technology coupled with the latest Xilinx Virtex Ultrascale+ High Bandwidth Memory (HBM) FPGA device. The HBM VU37P device features the speed and capabilities of an UltraScale+ FPGA together with integrated DRAM in the FPGA package, capable of up to 460GB/s data transfer rates on-chip. The RFSoc device includes 16 integrated analog-to-digital converters at 2GSPS, 16 digital-to-analog converters at 6.4 GSPS, a user-programmable FPGA fabric, and multi-core Zynq ARM® processing subsystem.

[More Information - VP460](#)

The SBC627 6U OpenVPX single board computer is designed to meet the requirements of a wide range of applications from commercial and industrial through to fully rugged defense and aerospace programs. It features the high performance, highly integrated 5th Generation Intel Core i7 processor platform, which offers integrated graphics and ECC memory controllers plus quad-core processing up to 2.7 GHz all in one device. Coupled with the Mobile Intel QM87 Express Chipset this provides an unmatched level of I/O bandwidth for both on-board and offboard functions. In addition to a comprehensive range of onboard I/O features, the SBC627 also offers on-board XMC mezzanine expansion sites for enhanced system flexibility. It offers extended temperature capability and a range of air- and conduction-cooled build levels.

[More Information - SBC627](#)

About AMETEK Abaco Systems

AMETEK Abaco Systems is a global leader in commercial open architecture computing and rugged embedded electronics. With more than 30 years of experience in aerospace & defense, industrial, energy, medical, communications and other critical sectors, Abaco's innovative solutions align with open standards to accelerate customer success. www.abaco.com

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