Press Release

New Small Form Factor Line Replaceable Units Bring More Choices with Configurable I/O, Enclosures

Compact housing, high environmental rating offers more choices for broad application in commercial, industrial, off-road and military applications

HUNTSVILLE, Ala.— October 11, 2021 Abaco Systems announced the DAGRX and SAYBRX small form factor (SFF) line replaceable unit (LRU) computers featuring Intel™ processors and flexible I/O delivering high performance in a compact package. The modular I/O approach in both rugged and lab variants empower users to select what is necessary for the application, optimizing size, weight and power (SWaP). The new computers were introduced in the Abaco booth at the AUSA 2021 Annual Meeting and Exposition in Washington.

The DAGRX and SAYBRX provide modular and scalable approaches to system design and architecture. When a 3U VPX system is either too large for the given space constrictions or too costly, the new systems allow developers to focus their resources and priorities on software and intellectual property. The rugged units are designed to be deployed in harsh environments (up to IP67). Lab variants can be used for development and test as well as full deployment in moderate environments (up to IP54). These computers address the need for ultra-compact, rugged computer systems for data and I/O processing in 8-36VDC applications in both commercial and military sectors and are ideal for use on mobile applications including industrial AGVs, off-road utility equipment (forestry, agriculture, construction, mining, etc.), railway, maritime, and avionics applications.

The DAGRX incorporates Intel's smallest footprint CPU, the Intel ATOM® E3845 Quad Core 1.91 GHz, and is a best-in-class ultra-low SWaP-C solution. Power consumption depends on configuration but is typically around 13W@28VDC. The lab variant has an operating temperature range of -20°C to +60°C (baseplate), while the rugged variant has an operating temperature range of -40°C to +85°C (baseplate). DAGRX has extensive I/O flexibility and can be configured with: MIL-STD-1553, ARINC 429, GPS, serial I/O, Wi-Fi, digital I/O, 12-bit A/D, and CANbus, and up to five 1000BASE-T ports. All variants come standard with USB2.0, USB3.0, RS232. A single or multiple combination of I/O are available. Onboard memory starts at 64GB and is expandable through 2.5" SSD and mSATA options. The lab variants feature commercial style connectors for power and I/O. Rugged variants feature MIL-DTL-38999-style connectors for power and I/O. DAGRX supports Linux and Windows operating systems.

The SAYBRX features the Intel i7-9850HE @ 2.7 / 4.4 GHz TurboBoost and optional NVIDIA® Quadro® P2000 GPU. It offers all I/O available in the DAGRX but adds more USB, serial, DVI-I, and DisplayPort options. Expansion is via XMC/PMC, mPCIe and M.2. SAYBRX offers BIOS to support Windows, Linux, OpenGL, DirectX, NVIDIA® PhysX®, and NVIDIA 3D Vision®.

Pete Thompson, vice president of product management for Abaco Systems, said, "The DAGRX and SAYBRX show Abaco is committed to leading the industry in commercial off the shelf rugged processing for all size, weight and power applications. By filling this gap and providing an ultra-small form factor, we are uniquely positioned to provide a system level solution to customers at every entry point of the SWaP-C spectrum. Our innovative team is focused on technology advancement, quality, and attention to design in an effort to ensure our customers are able to succeed in every environment."

More Information at www.abaco.com/DAGRX and www.abaco.com/SAYBRX

About Abaco Systems

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.

Abaco Systems is a subsidiary of AMETEK, Inc., a leading global manufacturer of electronic instruments and electromechanical devices with 2020 sales of more than $4.5 billion. www.abaco.com

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