

EIZO Releases Industry's First Rugged PCIe Graphics/GPGPU Card for Airborne/Naval ISR Applications

- EIZO's new Condor GR4 PCIe 3G-SDI video capture and GPGPU processor is a one-card solution that simultaneously captures, processes, encodes, decodes, displays and streams video, and delivers exceptional MTBF performance.
- The Condor GR4 PCIe supports NVIDIA PascalTM and TuringTM-based MXM GPUs and provides future-proofing with an easy upgrade path to the latest NVIDIA QuadroTM GPUs.

Altamonte Springs, Florida, July 7, 2020 – EIZO Rugged Solutions Inc., a provider of ruggedized graphics and video products, has released the industry's first rugged PCI Express (PCIe) graphics/GPGPU card with four 3G-SDI inputs and outputs. The Condor GR4 PCIe card is designed for use in rugged rackmount servers and workstations and to be deployed in airborne and naval surveillance programs.

The high performance passively cooled 3G-SDI video capture and GPGPU board provides a single card solution to simultaneously capture, process, encode, decode, display, and stream video data in manned and unmanned rugged ISR applications.

The Condor GR4 PCIe card is designed to host NVIDIA Pascal[™] and Turing[™]-based MXM GPUs (graphics processing units), supporting PCI Express (PCIe) Gen 3.0 (16, 8, or 4 lane). The product currently has two variants, based on the NVIDIA GPUs — Quadro P5000 or Quadro P3000 – but also offers an upgrade path to the latest NVIDIA® Quadro RTX[™] Turing GPUs. The maximum power consumption ranges from 85 W to 110 W depending upon the variant. The Condor GR4 PCIe is built and tested to withstand extreme temperatures, shock, and vibration for surviving in harsh environments as per MIL-STD-810.

Selwyn L. Henriques, president and CEO of EIZO Rugged Solutions, said: "The Condor GR4 PCIe meets the needs of both manned and unmanned ISR platforms, where high definition video must be captured, processed, displayed, encoded, recorded and/or transmitted to base stations, all with exceptionally low latency and high accuracy."

"With 3G-SDI fast becoming the output of choice for developers of sensor pods and large gimbals featuring short wave, infrared, thermal, and optical cameras, we expect this one card solution to tick all the boxes for our customers," said Mr. Henriques. "The GR4 PCIe delivers exceptional MTBF (mean time between failure) performance – aided by passive cooling and fanless design – and its inherent modularity allows for GPU performance upgrades in the future. That's why this product has already been specified on several airborne platforms."

The Condor PCIe graphics and raw video capture card enables direct video capture to GPU memory using GPUDirect RDMA for high-speed data transfer. In GPU memory, the applications can do processing such as image analysis, image enhancement, 360-degree video stitching, sensor fusion, and target detection, using GPGPU (CUDA® / OpenCLTM), all with extremely low latency. The card also supports CUDA® and OpenCLTM based GPGPU computing, AI processing (artificial intelligence), deep learning, and H265/H264 encoding/decoding.

EIZO Rugged Solutions offers flexibility and responsiveness to customer requirements through the customizability of its products. The Condor GR4 PCIe can be customized for other IO configurations, video formats, or form factors.

For more information on the Condor GR4 PCIe card or any other product from EIZO Rugged Solutions, please visit www.eizorugged.com, email condor@eizo.com or call +1 (407) 262-7100.





Media photo:

www.eizorugged.com/press/releases/images/Condor GR4 PCIe press.jpg

Product datasheet:

www.eizorugged.com/support/brochures/pdfs/Condor GR4 PCIe.pdf

Media contact:

Carlie Sutherland EIZO Rugged Solutions Phone: +1 (407) 262-7100

Email: carlie.sutherland@eizo.com

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About EIZO Rugged Solutions

EIZO Rugged Solutions Inc. has been developing graphics and video solutions for military, air traffic control, and other embedded applications for over 30 years. The ISO9001:2015 certified company offers a range of commercial off-the-shelf (COTS) products targeted at video capture, processing, display, compression, streaming, GPGPU, Artificial Intelligence (AI), video format conversion and data archival. The company designs and manufactures its core MIL-STD-810 graphics and video products in the USA, serving customers in defense, security, ISR, aerospace, avionics, transportation, maritime, and industrial markets. Its rugged monitors offer the high quality, reliability, and long-term availability needed to meet the stringent requirements of defense and other niche markets.

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