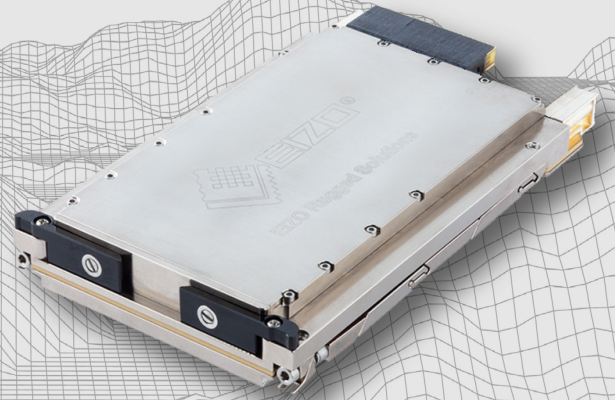


SOSA-aligned OpenVPX 3U form factor graphics & GPGPU card based on NVIDIA Ampere architecture



ADVANCED GPU CAPABILITIES

5,888 CUDA cores (3rd gen)
184 Tensor Cores (3rd gen)
46 RT Cores (2nd gen)

HIGH-SPEED DATA TRANSFER

Support for NVIDIA ConnectX-7 SmartNIC and NVIDIA GPUDirect[®] RDMA

3U VPX SOSA-ALIGNED

SOSA™ Technical Standard slot profiles 14.6.11 and 14.6.13 with optional DisplayPort

OpenVPX Graphics & GPGPU Card with NVIDIA ConnectX-7 SmartNIC

The Condor GR2S-A4500-ETH is a rugged OpenVPX 3U form factor video graphics and GPGPU card based on NVIDIA[®] Ampere™ architecture and the NVIDIA[®] ConnectX[®]-7 SmartNIC featuring high-speed Ethernet for data transfer up to 100 Gbps. This 3U VPX card is designed with the NVIDIA Ampere A4500 GPU with 16 GB GDDR6 graphics memory with Error Correction Code (ECC), 46 RT Cores, 184 Tensor Cores, and 5,888 CUDA[®] cores. In addition, the NVIDIA Ampere A4500 GPU supports PCI Express Gen 4, NVIDIA GPUDirect™ RDMA, and delivers up to 17.66 TFLOPS FP32 single floating point performance per slot. The Condor GR2S-A4500 offers high-performance embedded computing (HPEC) capabilities to C5ISR mission processing applications such as low-latency GPGPU processing, real-time ray tracing, deep learning (DL), and AI inferencing.

The Condor GR2S-A4500-ETH is designed with an NVIDIA[®] ConnectX[®]-7 SmartNIC which enables high-speed data transfer and enhanced storage performance with NVIDIA GPUDirect™ RDMA and RoCE. The ConnectX-7 fabric includes an embedded PCIe Switch along with SmartNIC function, this allows for better board function and reduces the overall power footprint (lower SWaP) of the card. The card supports 40/100Gb Ethernet DataPlane interface and is compatible with OpenVPX VITA connectors. The Condor GR2S-A4500-ETH has been designed in line with the SOSA™ Technical Standard slot profiles 14.6.11 and 14.6.13.



MIL-STD 810
Shock



MIL-STD 810
Temperature



MIL-STD 810
Vibration



SWaP

Condor GR2S-A4500-ETH Specifications

Interface

3U VPX Form Factor
8 or 16 Lane PCI Express 4.0

Graphics Processor

NVIDIA RTX A4500 GPU (Ampere Architecture)
Supporting DirectX 12, OpenGL 4.6, and Vulkan 1.2)

Graphics Memory

16 GB GDDR6 ECC Memory
256-bit Memory Interface
512 GB/s Memory Bandwidth

GPGPU Capabilities

5888 CUDA Cores. 184 Tensor Cores. 46 RT Cores.
Up to 17.66 TFLOPS FP32 Single Floating Point Performance
Supports CUDA, CUDA-X, OpenCL™ and Shader Model 5.1
H.265 (HEVC) / H.264 (MPEG4/AVC) Hardware Encode & Decode
NVIDIA GPUDirect® RDMA, NVENC, NVDEC

Profiles Supported

40/100Gb Ethernet DataPlane interface
SLT3-PAY-1F1U1S1S1U1U2F1H-14.6.11-0
SLT3-PAY-1F1U1S1S1U1U2F1H-14.6.13-0

Software & Platform Support

Windows or Linux on x86
VPX & PCIe

Operating Temperature (MIL-STD-810)

-40°C to 70°C (Rugged Air Cooled)
-40°C to 85°C (Rugged Conduction Cooled)

Power Consumption

80 - 150 W

Vibration (MIL-STD-810)

0.1 g²/Hz

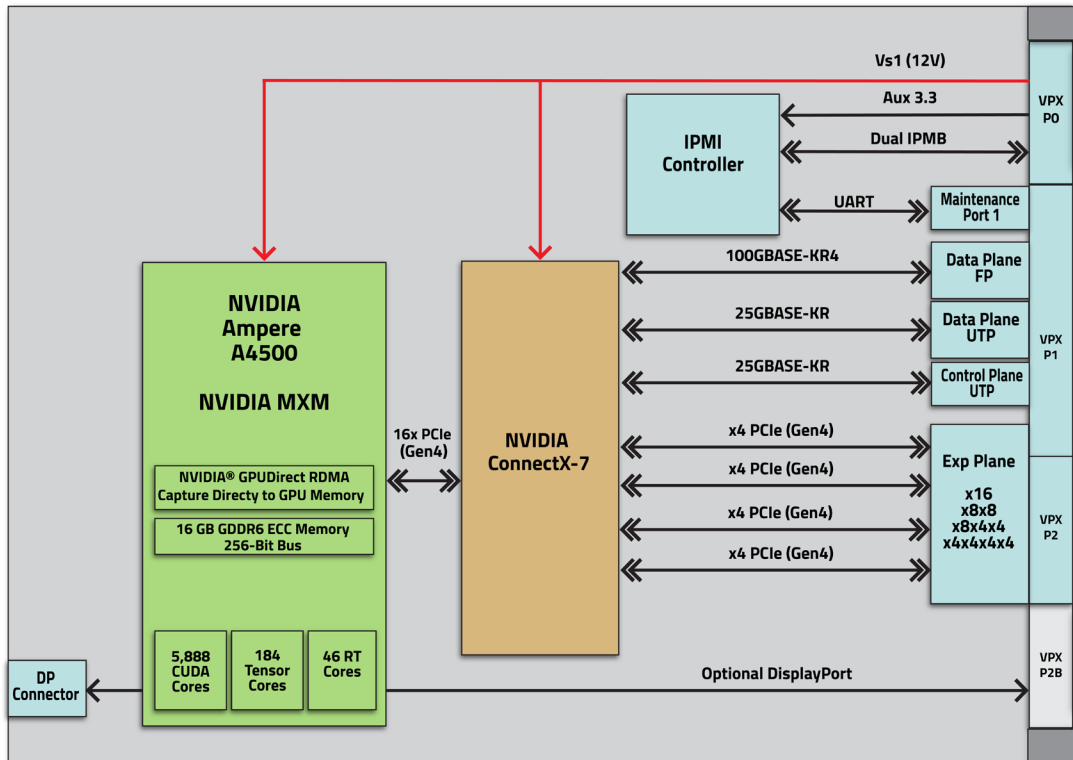
Shock (MIL-STD-810)

40 g

Humidity (MIL-STD-810)

95% Without Condensation

Condor GR2S-A4500-ETH Block Diagram



SOSA-aligned Payload:

Slot Profile : SLT3-PAY-1F1U1S1S1U1U2F1H-14.6.11-0 (P2 Fully De-Populated)
SLT3-PAY-1F1U1S1S1U1U2F1H-14.6.13-0 (P2B De-Populated)



EIZO Rugged Solutions

PHONE: (407) 262-7100 MAIL: RUGGED@EIZO.COM WEB: WWW.EIZORUGGED.COM

EIZO, the EIZO logo, and Condor are trademarks or registered trademarks of EIZO Corporation. All other company names, product names, and logos are trademarks or registered trademarks of their respective companies. Copyright ©2023 EIZO Rugged Solutions Inc. All rights reserved. Information in this document is subject to change without notice. EIZO Rugged Solutions Inc. assumes no responsibility for errors or omissions that may appear in this document. Rev: A-5-2023