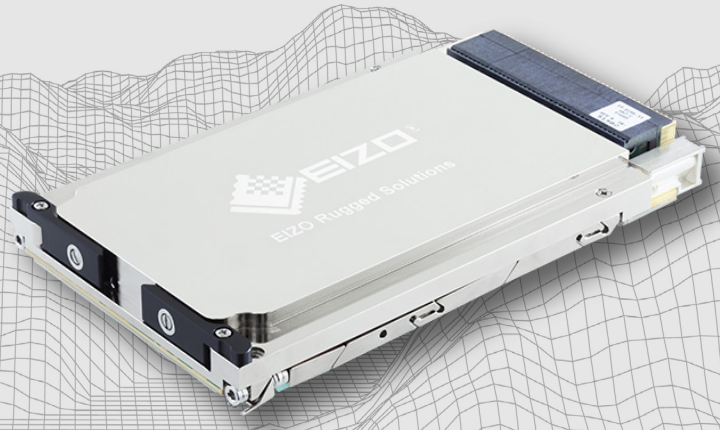
Condor™ GR2S-RTX5000

SOSA-aligned 3U VPX graphics & GPGPU card based on NVIDIA Turing architecture using the NVIDIA Quadro RTX 5000 GPU



NVIDIA QUADRO RTX™

NVIDIA TURING GPU

NVIDIA Quadro RTX 5000 GPU (TU104); 3072 CUDA Cores; 384 Tensor Cores; 48 RT Cores; 9.39 TFLOPS FP32.

SOSA ALIGNED SOLUTION

Available with SOSA-aligned slot profiles and VITA standards with multiple I/O configurations.

ACTIVE THERMAL DISSIPATION

Designed with exclusive thermal technology for full ruggedization.

3U VPX Graphics & GPGPU Card Based on NVIDIA Turing

The Condor GR2S-RTX5000 is a rugged OpenVPX 3U form factor card based on NVIDIA® Turing™ architecture and the NVIDIA RTX™ platform. With exceptional performance in GPGPU computing, AI inferencing, deep learning, and sensor processing, the card is ideal for ISR (Intelligence, Surveillance & Reconnaissance), EW (Electronic Warfare), DSP (Digital Signal Processing), DVE (Degraded Visual Environments), and Data Science applications.

The Condor GR2S-RTX5000 3U VPX uses the NVIDIA RTX5000 MXM GPU with16 GB GDDR6 graphics memory, and is aligned with the Sensor Open Systems Architecture™ (SOSA) technical standard. This high-performance embedded graphics card supports PCI Express 3.0 (16, 8 or 4 lane) interface on the SOSA defined Expansion Plane. This card is available with SOSA-aligned slot profiles with customizable I/O configurations. The Condor GR2S-RTX5000 delivers real-time performance for encoding applications with dedicated H.265 and H.264 encode and decode engines. Windows and Linux drivers are provided for x86 based platforms. The max power consumption of the board can be factory configured to range from 45W to 150W, depending upon your requirements and cooling profile.

MIL-STD 810 Shock

MIL-STD 810 Temperature

MIL-STD 810 Vibration

SWaP

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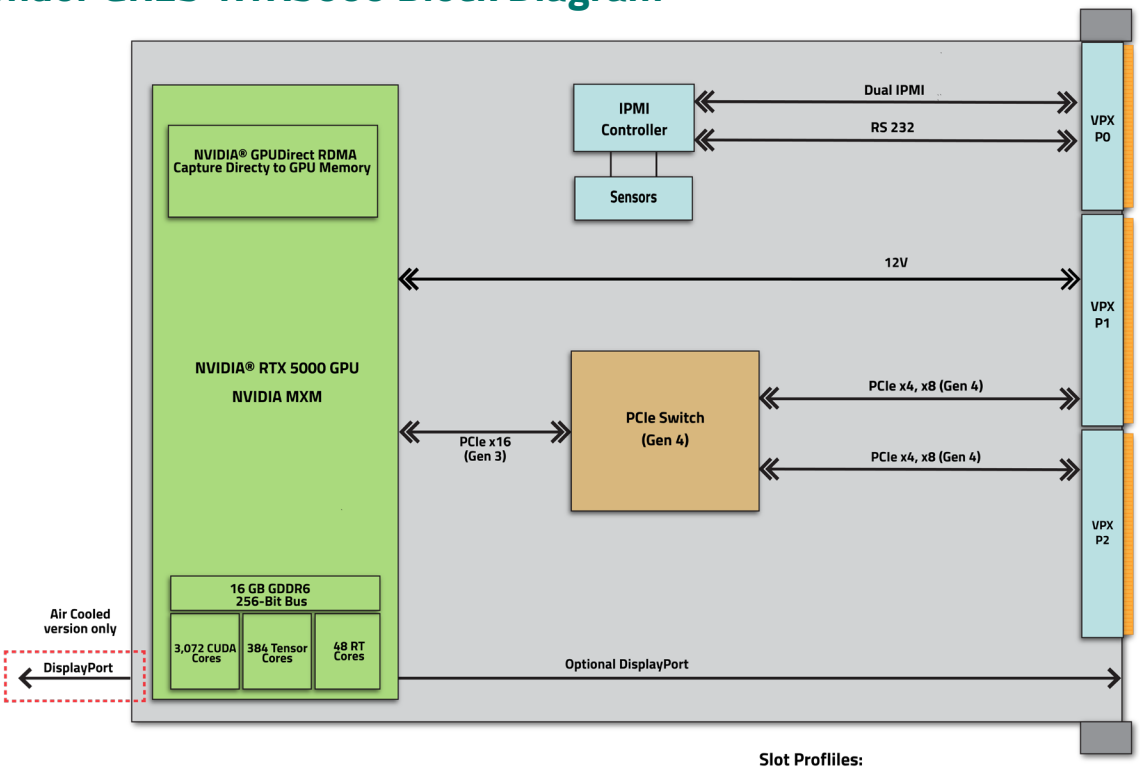
Condor GR2S-RTX5000 Specifications

Graphics Processor	NVIDIA Quadro RTX 5000 GPU (TU104 Turing Architecture) Supporting DirectX 12, OpenGL 4.5, and Vulkan 1.2
Interface	3U VPX Form Factor 1.0" Pitch (Conduction Cooled) 1" Pitch (Air Cooled)
Graphics Memory	16 GB GDDR6 256-bit Memory Interface 448 GB/s Memory Bandwidth
Profiles Supported	SLT3-PAY-1F1U1S1S1U1U2F1H-14.6.11 SLT3-PAY-1F1U1S1S1U1U4F1J-14.6.13
GPGPU Capabilities	3072 CUDA Cores. 384 Tensor Cores. 48 RT Cores. Up to 9.49 TFLOPS FP32 Single Floating Point Performance Supports CUDA 11 (Compute Capability 7.5) and CUDA-X OpenCL 1.2 and Shader Model 5.1 H.265 (HEVC) / H.264 (MPEG4/AVC) Hardware Encode & Decode NVIDIA GPUDirect® RDMA, NVENC, NVDEC
Power Consumption	12V supply only needed, 45 - 150W (factory confiigurable)
Operating Temperature (MIL-STD-810)	-40°C to 70°C (Rugged Air Cooled) -40°C to 85°C (Rugged Conduction Cooled) Please refer to the Hardware User Guide for details on temperature/performance characterization.
Vibration (MIL-STD-810)	0.1 g^2/Hz
Shock (MIL-STD-810)	40 g
Humidity (MIL-STD-810)	95% Without Condensation
Software & Platform Support	Windows or Linux on x86 VPX & PCIe

Condor GR2S-RTX5000 Block Diagram



Slot Profliles:
SIT3-PAY-1E1U1S1S1U1U2F1H-14.6.11
SLT3-PAY-1F1U1S1S1U1U451 -14.6.13

EIZO Rugged Solutions

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