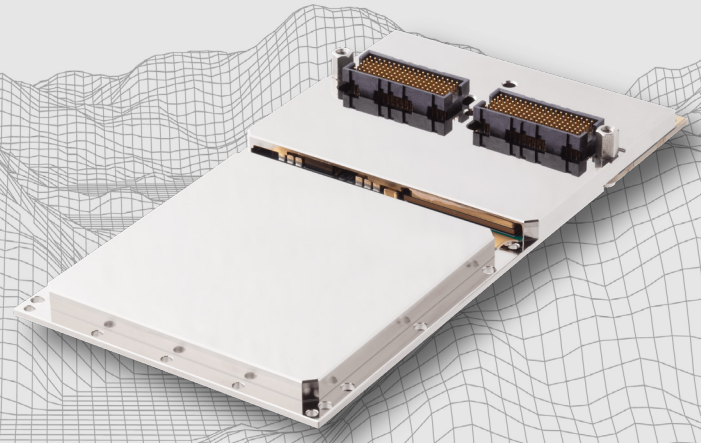
Condor™ NVP2009AxX

Rugged XMC graphics & GPGPU card based on the NVIDIA Quadro Pascal P2000 GPU with 3G-SDI, DisplayPort, and VGA/RGsB/CVBS video outputs



NVIDIA PREFERRED PARTNER

HIGH PERFORMANCE GPU

Chip-down NVIDIA® Quadro® Pascal™ P2000 (GP107) with up to 2.3 TFLOPS FP32 Single Floating Point Performance

ADVANCED COMPUTING

Supports CUDA and OpenCL based GPGPU computing, AI processing, deep learning, H.265 (HEVC) encoding & decoding

BUILT TO WITHSTAND

This product is offered in Conduction Cooled or Air Cooled form factors and is designed to MIL-STD-810

XMC Graphics & GPGPU Card with Quad Analog and Digital Outputs

The Condor NVP2009AxX is a rugged high-performance graphics XMC card based on the NVIDIA Quadro P2000 GPU (chip-down) supporting both legacy and newer digital/analog video output formats. This advanced XMC card supports CUDA and OpenCL based GPGPU computing, AI processing, deep learning, and H.265 (HEVC) / H.264 encoding & decoding.

The Condor NVP2009AxX supports four active video outputs with customizable output combinations using either DisplayPort++, DVI, 3G-SDI, CVBS (NTSC/PAL) and/or RGB (STANAG, RS-170, RS-343). The CVBS and RGB video outputs can be configured to support single-ended or differential signaling. Differential signaling is a key enhancement over the traditional single-ended signaling to minimize system-induced signal noise. Supporting both signal types is critical for situations where modern and legacy interfaces must be supported on the platform.

The Condor NVP2009AxX is ideal for GPGPU applications such as C5ISR, situational awareness, signal intelligence (SIGINT), and includes machine learning and autonomy. NVIDIA NVENC (HW encode) and NVDEC (HW decode) can be used to hardware encode or decode video on the GPU. In addition, raw video data can be sent over PCIe directly to GPU memory for analysis/processing using NVIDIA GPUDirect™ RDMA. The card is available in conduction cooled or air cooled with rear XMC I/O on Pn6.

MIL-STD 810 Shock

MIL-STD 810 Temperature

MIL-STD 810 Vibration

SWaP

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Condor NVP2009AxX Specifications

Interface
XMC 1.0 or XMC 2.0
8 Lane PCIe 3.0

Graphics Processor
NVIDIA® Quadro® Pascal™ P2000 GPU (Chip-down GP107)
Supporting DirectX 12 and OpenGL 4.5

Graphics Memory
4 GB GDDR5
128-bit Memory Interface
96 GB/s Memory Bandwidth

GPGPU Capabilities
768 CUDA Cores
Up to 2.3 TFLOPS FP32 Single Floating Point Performance
Supports CUDA, OpenCL, and Shader Model 5.1
H.265 (HEVC) / H.264 (MPEG4/AVC) Hardware Encode & Decode
NVIDIA GPUDirect™ RDMA, NVENC, NVDEC

Video Outputs
Note: only four active outputs
Four 3G-SDI, One DisplayPort++
Two CVBS (NTSC/PAL)
Two VGA (STANAG 3350, RS-343, RS-170)
Rear Pn6 XMC I/O. VITA 46.9 x12d+x8d+24s.

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)

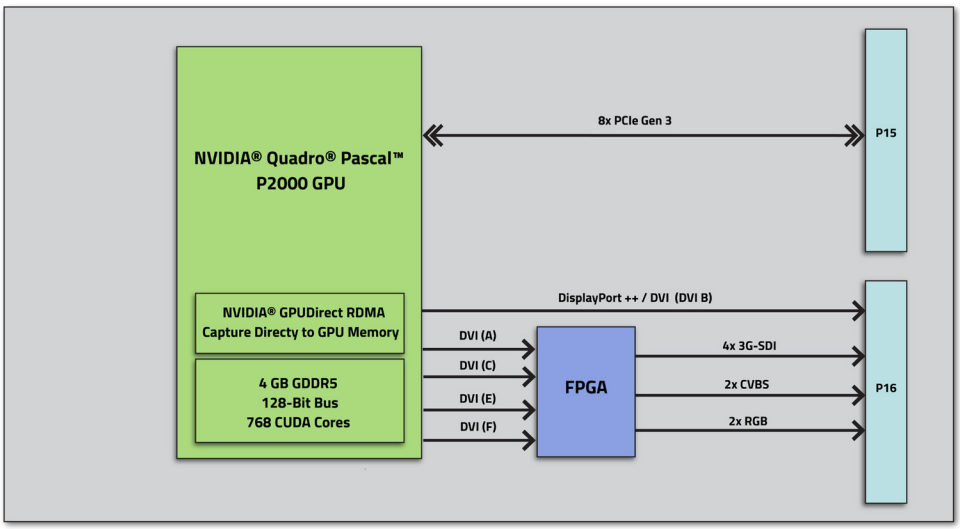
Power Consumption
20 - 32 W

Vibration (MIL-STD-810)
0.1 g^2/Hz

Shock (MIL-STD-810)
40 g

Humidity (MIL-STD-810)
95% Without Condensation

Condor NVP2009AxX Block Diagram



EIZO Rugged Solutions

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