

Rugged XMC graphics & GPGPU card based on the NVIDIA Quadro Pascal P2000 GPU with DisplayPort outputs.



HIGH PERFORMANCE GPU

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

CUSTOMIZABLE OUTPUTS

Three Rear XMC I/O
DisplayPort++ Video
Output

ADVANCED GPU COMPUTING

GPGPU – Supports CUDA 10
and OpenCL 1.2

XMC Graphics & GPGPU Card with Three DisplayPort Outputs

The Condor NVP2000xX is a chip-down XMC graphics and GPGPU card on NVIDIA Pascal™ architecture (GP107). It leverages the high performance of the NVIDIA Quadro P2000 GPU with 768 CUDA® cores and 4 GB of GDDR5 graphics memory, delivering up to 2.3 TFLOPs of peak performance with CUDA and OpenCL™ support.

The Condor NVP2000xX graphics processor ideal for GPGPU applications such as C5ISR, situational awareness, signal intelligence (SIGINT), and includes machine learning and autonomy. It has a built-in H.265 (HEVC) / H.264 (MPEG4 AVC) hardware encoder (NVENC) and decoder (NVDEC) and supports NVIDIA GPUDirect® RDMA for transferring video data to GPU memory over PCIe.

The card has three DisplayPort++ video outputs available from the rear XMC I/O connector Pn6. The rear XMC pin-out is compatible with 3U and 6U VPX systems that follow VITA 46.9 x12d+x8d+24s. In addition, EIZO Rugged Solutions' Adapt Series can be used to seamlessly convert DisplayPort to DVI or VGA format. The card is available as air cooled or conduction cooled.



MIL-STD 810
Shock



MIL-STD 810
Temperature



MIL-STD 810
Vibration



SWaP

Condor NVP2000xX 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

Three DisplayPort++
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 - 50 W

Vibration (MIL-STD-810)

0.1 g²/Hz

Shock (MIL-STD-810)

40 g

Humidity (MIL-STD-810)

95% Without Condensation

Condor NVP2000xX Block Diagram

