Condor
NVP2102AxX

NVIDIA® Quadro® Pascal™ P2000 (GP107) XMC Capture & GPGPU Card

Key Features:

- Inputs: Four 3G-SDI & Two NTSC/PAL
- Outputs: Two 3G-SDI & Two DVI/DisplayPort
- NVIDIA® Quadro® P2000 GPU with NVIDIA Pascal™ architecture
- 4 GB GDDR5 Frame buffer
- GPU Direct raw video capture
- Exceptionally low latency
- 128-bit Memory Width
- 96 GB/s Memory Bandwidth
- 768 Shader Processors
- Up to 2.3 TFLOPs of CUDA Processing Performance
- OpenGL 4.5, DirectX 12, CUDA 10
- H.265 (HEVC) / H.264 (MPEG4 AVC) Hardware Encode/ Decode

Rugged Design:

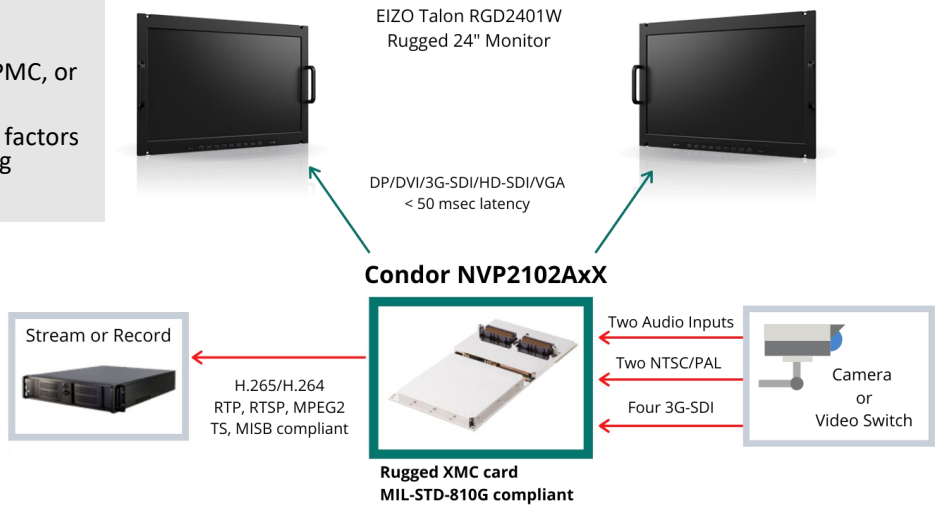
- Integrated GPU
- MIL-STD-810G Compliant
- Conformal coated, thermally efficient heatsink technology
- Air-cooled or conduction cooled available

Highly Customizable:

- Customizable to meet end-user needs
- Input/output combinations from front panel, rear PMC, or rear XMC connectors (factory configured)
- 3U VPX, 6U VPX, Compact PCI, VME, and PCIe form factors supported with carrier boards or by direct mounting to single board computers (SBC)

The Condor NVP2012AxX is a high-performance graphics card that captures both analog & digital raw frame-by-frame audio/ video with exceptionally low latency. This all-in-one solution provides the ability to simultaneously capture, process, display, encode, decode, and stream video data while supporting CUDA and OpenCL based GPGPU computing, AI processing, Deep Learning and H.265/H.264 encoding/decoding.

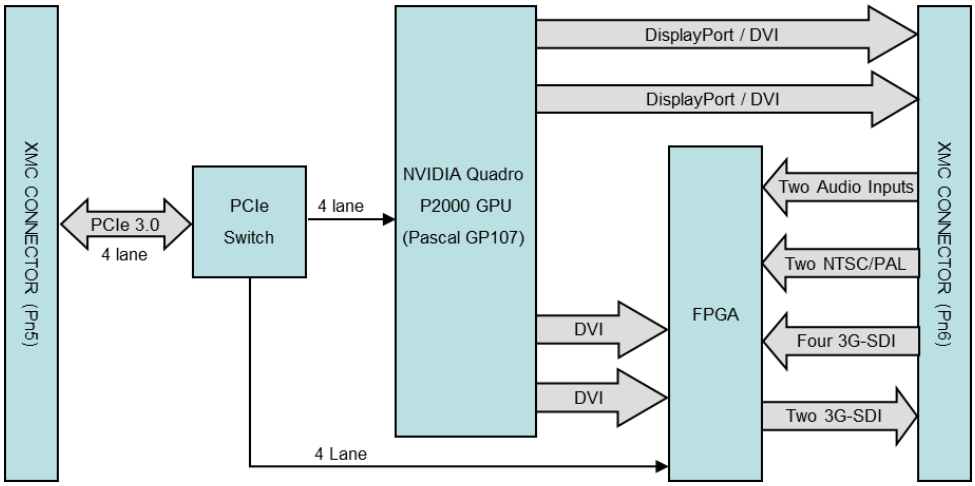
The Condor NVP2102AxX card is very I/O intensive and supports four 3G-SDI inputs, two CVBS (NTSC/PAL), and two audio inputs, as well as two 3G-SDI and two DVI or DisplayPort video outputs. The new XMC card is designed for applications that combine legacy video with newer digital video formats in high-end surveillance applications. The video capture (frame grabber) auto detects the input resolution and then transfers raw video frames directly to GPU memory or host memory. 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 / OpenCL), all with very low latency.



Condor NVP2102AxX Specifications

Graphics Processor	NVIDIA® Quadro® Pascal P2000 GPU107 GPU Supporting DirectX 12 and OpenGL 4.5
Interface	XMC 1.0 or XMC 2.0 4 Lane PCIe 3.0 (PCIe and 3U VPX Carrier Boards Available)
Graphics Memory	4 GB GDDR5 128-bit Memory Width 96 GB/s Memory Bandwidth
Video Outputs	Rear Pn6 XMC I/O. VITA 46.9 x12d+x8d+24s. Two 3G-SDI and Two DVI/DisplayPort
Video Inputs	Rear Pn6 XMC I/O. VITA 46.9 x12d+x8d+24s. Four 3G-SDI and Two NTSC/PAL
GPGPU Capabilities	Supports CUDA 10 (Compute Capability 6.1), Open CL 1.2 and Shader Model 5.0 768 Shaders 2.3 TFLOPs FP32 Single Floating Point Compute Performance Peak H.265 (HEVC) / H.264 Hardware Encode & Decode Capability
Power Rating	25 - 50W
Operating Temperature (MIL-STD-810G)	0°C to 55°C (Standard Air Cooled) -40°C to 70°C (Rugged Air Cooled) -40°C to 85°C (Rugged Conduction Cooled)
Humidity	95% Without Condensation
Vibration (MIL-STD-810G)	0.1 g^2 /Hz
Shock (MIL-STD-810G)	40g
Software & Platform Support	Windows or Linux on x86 VPX & PCIe

Condor NVP2102AxX Block Diagram



Bringing your projects to life™

EIZO Rugged Solutions Inc.

442 Northlake Blvd

Altamonte Springs, FL 32701, USA

407-262-7100

Website: www.eizorugged.com **Email: condor@eizo.com**

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