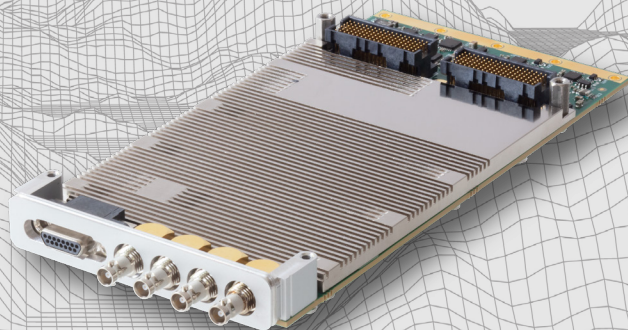


Rugged XMC graphics & GPGPU card based on the NVIDIA Quadro Pascal P2000 GPU with four 3G-SDI, DisplayPort++, and VGA/RGsb/CVBS video outputs



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 supports extreme temperature ranges -40°C to 70°C (Rugged Air Cooled) and is designed to MIL-STD-810

XMC Graphics & GPGPU Card with Digital and Analog Outputs

The Condor NVP2009AxF is a high-performance embedded graphics and GPGPU processing card based on the NVIDIA Quadro P2000 GPU (chip-down). This rugged XMC card supports both legacy and newer digital/analog video output formats, along with CUDA and OpenCL based GPGPU computing, AI processing, deep learning, and H.265 (HEVC) / H.264 encoding & decoding.

The Condor NVP2009AxF supports up to four video outputs active at the same time with customizable analog and digital output combinations. DisplayPort++, DVI, RGB (VGA, STANAG 3350, RS-170, RS-343), 3G-SDI and CVBS (NTSC/PAL) outputs are available for interfacing with modern digital equipment. The 3G-SDI 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. In addition, raw video data can be sent over PCIe directly to GPU memory for analysis/processing using NVIDIA GPUDirect™ RDMA.



MIL-STD 810
Shock



MIL-STD 810
Temperature



MIL-STD 810
Vibration



SWaP

Condor NVP2009AxF Specifications

Graphics Processor	NVIDIA® Quadro® Pascal™ P2000 GPU (Chip-down GP107) Supporting DirectX 12 and OpenGL 4.5
Interface	XMC 1.0 or XMC 2.0 8 Lane PCIe 3.0
Graphics Memory	4 GB GDDR5 128-bit Memory Interface 96 GB/s Memory Bandwidth
Front Video Outputs	<u>*Only four active outputs are allowed at once (front and rear):</u> Four 3G-SDI Two RGB (VGA, RS-170, RS-343, STANAG 3350) Two CVBS (NTSC/PAL)
Rear Video Outputs	One DisplayPort++/DVI Four 3G-SDI
GPGPU Capabilities	768 CUDA Cores Up to 2.3 TFLOPS FP32 Single Floating Point Performance Supports CUDA 10 (Compute Capability 6.1) OpenCL 3.0 and Shader Model 5.1 H.265 (HEVC) / H.264 (MPEG4/AVC) Hardware Encode & Decode NVIDIA GPUDirect™ RDMA, NVENC, NVDEC
Power Consumption	25 - 40 W GPU VBIOS 25 W
Operating Temperature (MIL-STD-810)	-40°C to 70°C (Rugged Air Cooled)
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 NVP2009AxF Block Diagram

