VPX3U-P5000-VO

NVIDIA® QUADRO® PASCAL™ P5000, 6.2 TFLOPS WITH 4 VIDEO OUTPUTS

Key Features

- NVIDIA P5000, 6.2 TFLOPS, GPGPU Engine
- 4 independent DisplayPort 1.4 outputs
- 16 GB GDDR5 memory with NVIDIA GPUDirect™ DMA technology
- PCIe x16 Gen3
- Operating power configurable hard cap: 40 – 100W

Additional Features

- 4 DisplayPort 1.4 digital video outputs:
  - support for High Dynamic Range (HDR) video
  - 4K at 120Hz or 5K at 60Hz with 10-bit color depth
- Pascal GPGPU parallel processing:
  - 2048 CUDA® cores
  - CUDA Toolkit 8.0, CUDA Compute version 6.1
  - OpenCL™ 1.2, DirectX® 12, OpenGL 4.5
  - Vulcan 1.0
- Memory width: 256-bit width
- Maximum memory bandwidth: 192 GB/s
- NVENC/NVDEC accelerator for HEVC (H.265) and AVC (H.264) hardware encode/decode

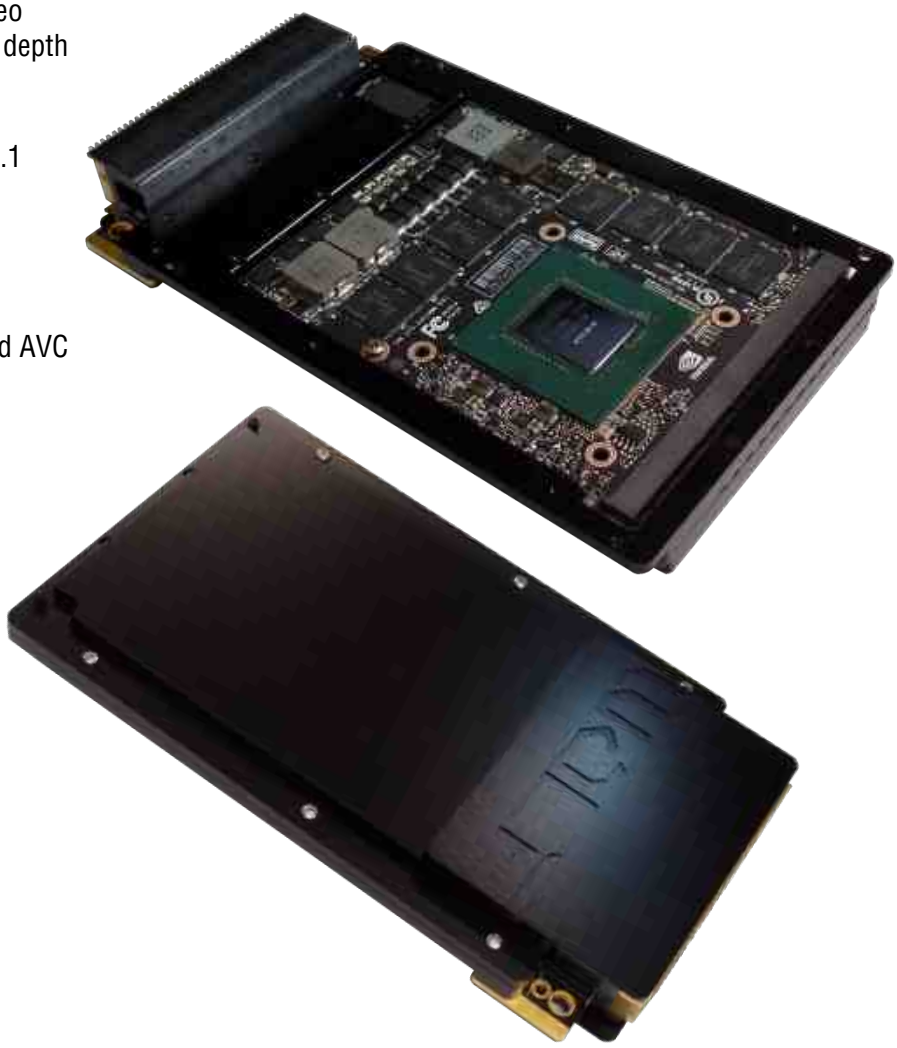
Specifications

- High level of ruggedization:
  - Rugged air-cooled or conduction-cooled
  - Operating temperature: -40° to +71°C
  - Vibration (sine wave): 5G peak, 5 - 2000Hz
  - Shock: 20G peak
- Front I/O and Rear I/O configurations
- Windows and Linux drivers
- Supported VPX configurations:
  - VPX-REDI (ANSI/VITA 48.x)
  - OpenVPX (ANSI/VITA 65)

Overview

The VPX3U-P5000-VO board uses NVIDIA's advanced Quadro Pascal 16nm GPU technology. This rugged Pascal-based board includes four DisplayPort 1.4 outputs, which provides support for High Dynamic Range (HDR) video, and resolutions of 4K at 120Hz or 5K at 60Hz with 10-bit color depth.

The rugged VPX3U-P5000-VO board includes air-cooled and conduction cooled options. For additional options contact WOLF to discuss MCOTS and custom design services.



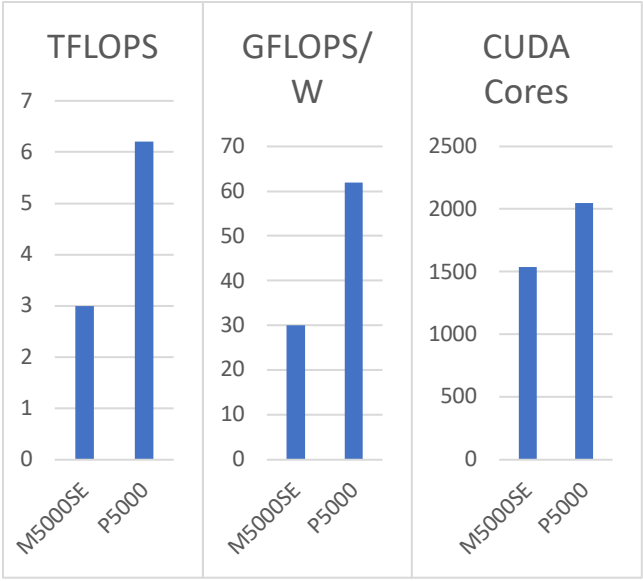
WOLF- 1116 VPX Module

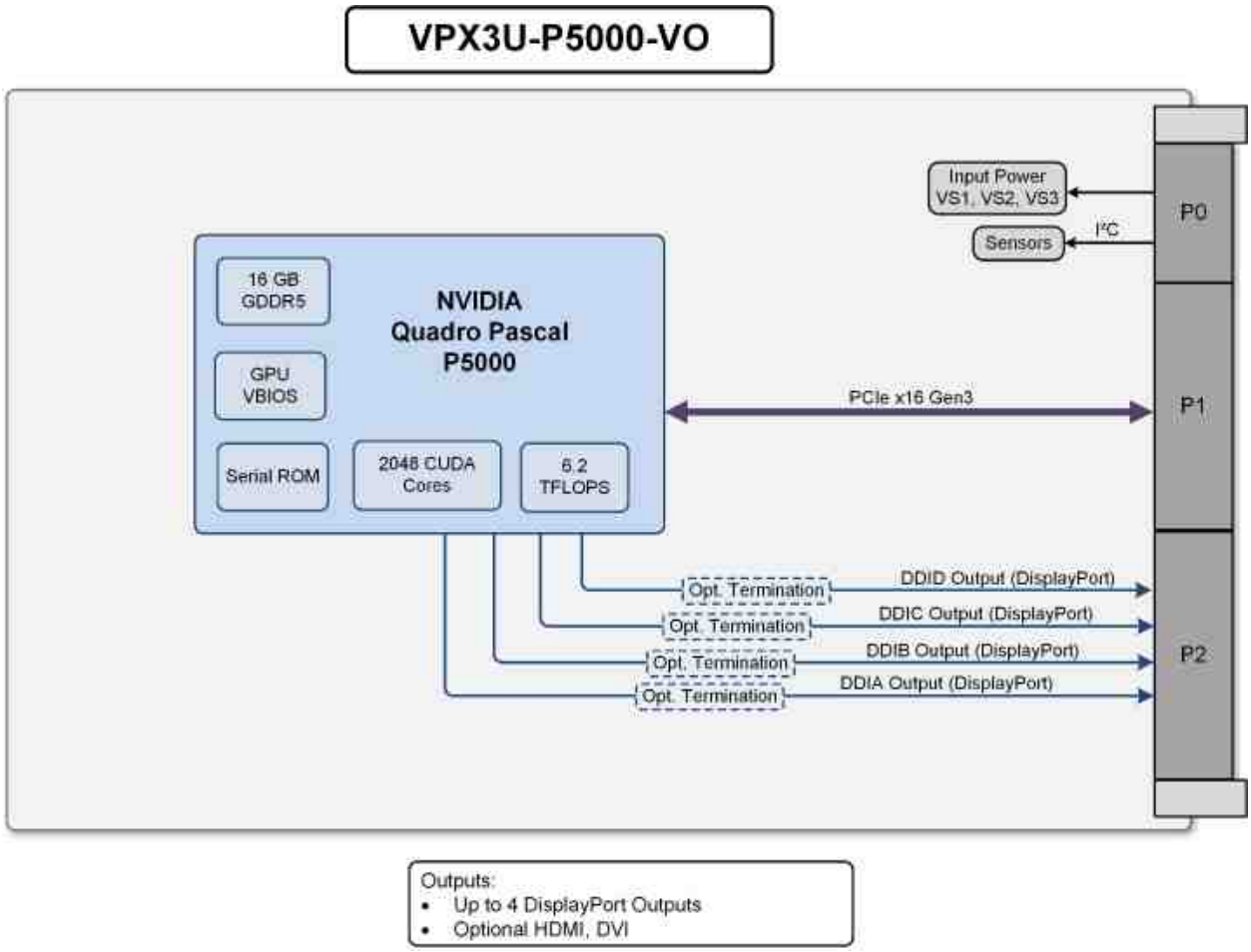
www.WOLFAdvancedTechnology.com
sales@wolf-at.com | International: +1 (905) 852-1163 | USA Toll-Free: 1 (800) 931-4114

NVIDIA Quadro Pascal P5000

Quadro Pascal P5000 is an enormous leap in processing capability compared to the previous generation Maxwell M5000SE. It can provide up to 6.2 TFLOPS of CUDA processing at a very modest operating power, providing a huge improvement to 62 GFLOPS/Watt, making it an excellent choice for aerospace and defense applications.

Quadro Pascal architecture provides a more powerful Unified Memory feature. Pascal's larger virtual memory address space enable GPUs to access the entire system memory plus the memory of all GPUs in the system, while the on-demand page migration engine allows the system to migrate pages from anywhere in the system to the GPU's memory for processing. This improved memory handling results in significantly improved algorithm efficiency.





WOLF- 1116 VPX Module

Ordering Codes for VPX3U-P5000-VO

Part Number	Description
111623-FC00*VPX3v10	Air Cooled
111633-FC00*VPX3v10	Conduction Cooled

* Contact Sales for code definition. Code can specify:
Conformal Coating, Modified Power Cap, other

Manufacturing and Quality Assurance

WOLF designs modules to pass the following environmental standards:

- MIL-STD-810 (United States Military Standard for Environmental Engineering Considerations and Laboratory Tests)
- MIL-HDBK-217 (Reliability Prediction of Electronic Equipment)
- RTCA DO-160 (Environmental Conditions and Test Procedures for Airborne Equipment) on request

WOLF complies with the following quality management systems:

- ISO 9001:2015: Quality management systems (certified)
- SAE AS5553: Counterfeit Electronic Parts; Avoidance, Detection, Mitigation, and Disposition (compliant)
- SAE AS9100D: Quality Management System - Requirements for Aviation, Space and Defense Organizations (preparing for certification in 2019)

Boards are manufactured to meet the following standards:

- IPC-A-610 CLASS 3 (Acceptability of Electronic Assemblies)
- IPC 6012 CLASS 3 (Qualification and Performance Specification for Rigid Printed Boards, Class 3 for High Reliability Electronic Products)
- IPC J-STD-001 (Requirements for Soldered Electrical and Electronic Assemblies)

Caveat: integrated third party MXM modules may not meet the same standards as WOLF manufactured modules.

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