

# VPX6U-P5000-DUAL-VO



DUAL NVIDIA® QUADRO® PASCAL™ P5000, 12.4 TFLOPS, 8 VIDEO

**EOL Product. Contact WOLF to discuss alternatives.**

## KEY FEATURES

- Dual NVIDIA P5000, 12.4 TFLOPS GPGPU Engine
- 8 independent DisplayPort 1.4 outputs
- 32 GB GDDR5 memory with NVIDIA GPUDirect™ DMA technology
- PCIe x16 Gen3
- Operating power configurable hard cap: 80 – 200W

## ADDITIONAL FEATURES

- Up to 8 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:
  - 4096 CUDA® cores
  - CUDA Toolkit 8.0, CUDA Compute version 6.0
  - OpenCL™ 1.2, DirectX® 12, OpenGL 4.5
  - Vulkan 1.0
- Memory width: 256-bit width to each GPU
- Maximum memory bandwidth: 192 GB/s to each GPU
- NVENC/NVDEC accelerator for HEVC (H.265) and AVC (H.264) hardware encode/decode

## SPECIFICATIONS

- High level of ruggedization:
  - Rugged air-cooled (AC) or conduction-cooled (CC)
  - Operating temperature: -40° to +71°C for CC, -20° to +71°C for AC
  - Vibration (sine wave): 5g peak, 5 - 2000Hz for CC
  - Vibration (random): 0.04 g2/Hz, 5-2000 Hz, 1hr/axis
  - Shock: 20g, 11ms half-sine shock pulses
- 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 VPX6U-P5000-DUAL-VO board uses two advanced NVIDIA Quadro Pascal 16nm GPUs. This rugged Pascal-based board includes eight 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 board implements PCIe x16 Gen3, with a flexible, highly configurable PCIe interface, supporting a variety of OpenVPX profiles and enabling a broad range of bridge link configurations.

The rugged VPX6U-P5000-DUAL-VO board includes air-cooled and conduction cooled options. For additional options contact WOLF to discuss MCOTS and custom design services.

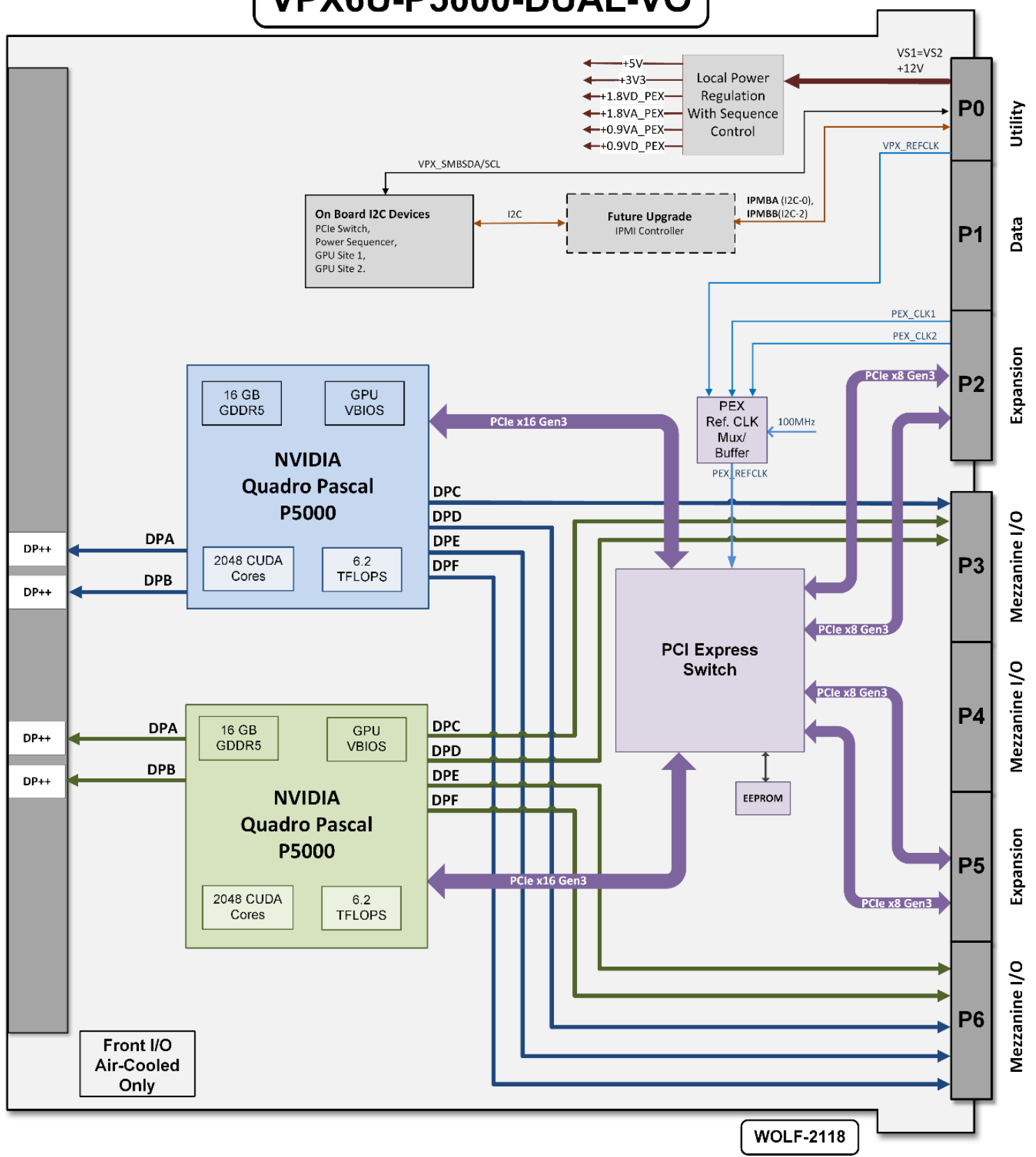


**EOL Product. Contact WOLF to discuss alternatives.**

**WOLF- 2118 VPX Module**

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## VPX6U-P5000-DUAL-VO



WOLF- 2118 VPX Module

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## ORDERING CODES FOR VPX6U-P5000-DUAL-VO

Part Number	Description
21182x-FU0**VPX6v10	Air Cooled, Dual P5000
21183x-FU0**VPX6v10	Conduction Cooled, Dual P5000
21182x-FC0**VPX6v10	Air Cooled, Single P5000
21183x-FC0**VPX6v10	Conduction Cooled, Single P5000

x = 1 (0.8"), 2 (0.85"), 3 (1.0"), or 6 (1.0" – 1101)

\*\* Contact Sales for code definition. Code can specify: Conformal Coating, PCI3 Bus Choices, Modified Power Cap, video termination, other

## MANUFACTURING AND QUALITY ASSURANCE

WOLF stress tests to MIL-STD-810 (United States Military Standard for Environmental Engineering Considerations and Laboratory Tests) and MIL-HDBK-217 (Reliability Prediction of Electronic Equipment); Alternately will stress test to RTCA DO-160 (Environmental Conditions and Test Procedures for Airborne Equipment) on request.

WOLF products meet the following quality standards:

- ISO 9001:2015 (Quality management systems)
- 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 Certified (Requirements for Soldered Electrical and Electronic Assemblies)

Boards are manufactured to meet the following standards:

- SAE AS9100D (Quality Management System - Requirements for Aviation, Space and Defense Organizations)
- SAE AS5553 (Counterfeit Electronic Parts; Avoidance, Detection, Mitigation, and Disposition)

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



**WOLF- 2118 VPX Module**