

DUAL NVIDIA® QUADRO® PASCAL™ P3000, 7.8 TFLOPS, 8 VIDEO OUTPUTS

KEY FEATURES

- Dual NVIDIA P3000, 7.8 TFLOPS GPGPU Engine
- 8 independent DisplayPort 1.4 outputs
- 12 GB GDDR5 memory
- PCIe x16 Gen3
- Operating power configurable hard cap: 75-150W

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:
 - 2560 CUDA® cores
 - CUDA Toolkit 9, CUDA Compute version 6.1
 - OpenCL™ 1.2, DirectX® 12, OpenGL 4.5
 - Vulkan 1.0
- Memory width: 192-bit width to each GPU
- Maximum memory bandwidth: 168 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-sign 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-P3000-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-P3000-DUAL-VO board includes air-cooled and conduction cooled options. For additional options contact WOLF to discuss MCOTS and custom design services.



WOLF- 2118 VPX Module



ORDERING CODES FOR VPX6U-P3000-DUAL-VO

Part Number	Description
21182x-FR0**VPX6v10	Air Cooled, Dual P3000
21183x-FR0**VPX6v10	Conduction Cooled, Dual P3000
21182x-F30**VPX6v10	Air Cooled, Single P3000
21183x-F30**VPX6v10	Conduction Cooled, Single P3000

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.

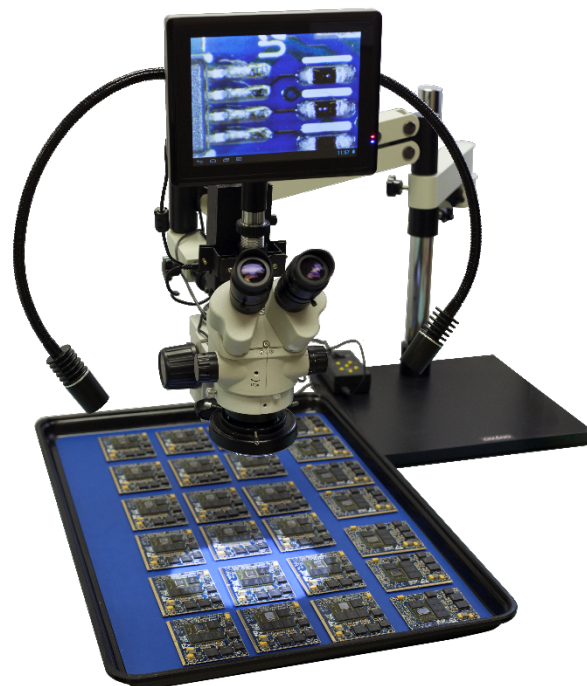
WOLF products meet the following quality standards:

- 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.



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