

VPX6U-P5200E-TRIO-VO

CHIP-DOWN DESIGN

THREE NVIDIA QUADRO PASCAL GP104, 26 TFLOPS, 12 VIDEO OUTPUTS

ADVANCE INFORMATION

KEY FEATURES

- Three NVIDIA GP104, 17.4 TFLOPS, GPGPU Engine
- Chip-down WOLF design and fabrication meets military and aerospace specifications
- 12 independent DisplayPort 1.4 outputs
- 48 GB GDDR5 memory with NVIDIA GPUDirect™ DMA technology
- Operating power configurable hard cap: 160 – 360W

ADDITIONAL FEATURES

- Up to 12 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:
 - 7680 CUDA® cores
 - CUDA Toolkit 9, CUDA Compute version 6.1
 - OpenCL™ 1.2, DirectX® 12, OpenGL 4.5, Vulkan
- Memory width: 256-bit width to each GPU
- Maximum memory bandwidth: 243 GB/s to each GPU
- NVENC/NVDEC accelerator for HEVC (H.265) and AVC (H.264) hardware encode/decode
- PCIe x16 Gen3
- Windows and Linux drivers

SPECIFICATIONS

- Manufactured in North America with full component traceability
- Component derating meets or exceeds NASA and Rome Labs specifications for reliability
- High level of ruggedization:
 - Rugged air-cooled (AC) or conduction-cooled (CC)
 - Operating temperature: -40° to +85°C (CC), -40° to +71°C (AC)
 - Vibration (sine wave): 10G peak, 5 - 2000Hz
 - Shock: 40g peak 11ms half-sign shock pulses
- Front I/O and Rear I/O configurations
- Supported VPX configurations:
 - VPX-REDI (ANSI/VITA 48.x)
 - OpenVPX (ANSI/VITA 65)

OVERVIEW

The VPX6U-P5200E-TRIO-VO module uses three advanced NVIDIA® Quadro® Pascal™ GPUs in a WOLF chip-down design. It supports 12 DisplayPort 1.4 outputs, with support for High Dynamic Range (HDR) video, and resolutions of 4K at 120Hz or 5K at 60Hz with 10-bit color depth.

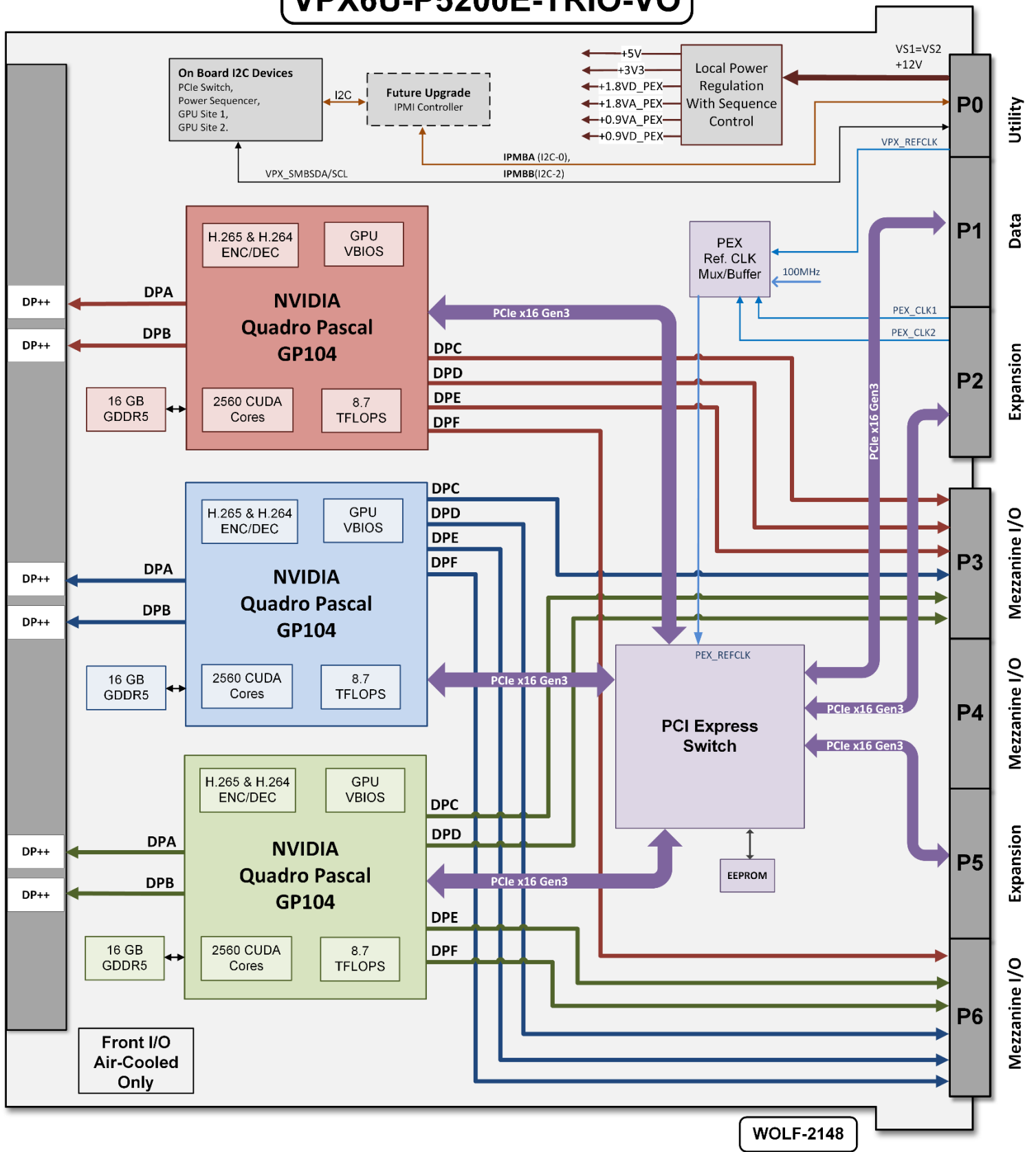
WOLF designs and manufactures these rugged modules in North America with full component traceability, specifically for use in the harsh environments encountered in aerospace and defense applications. They are designed to pass MIL-STD-810 and DO-160 environmental tests. They are manufactured to IPC-A-610 CLASS 3 and IPC 6012 CLASS 3 for high reliability electronic products. They are compliant with IPC J-STD-001 soldering standards.

The board has a flexible, highly configurable PCIe interface, supporting a variety of OpenVPX profiles and enabling a broad range of bridge link configurations.



WOLF- 2148 Chip-Down VPX Module

VPX6U-P5200E-TRIO-VO



WOLF- 2148 Chip-Down VPX Module

ORDERING CODES FOR VPX6U-P5200E-TRIO-VO

Part Number	Description
21482x-F.0**VPX6v10	Air Cooled, Trio GP104
21483x-F.0**VPX6v10	Conduction Cooled, Trio GP104
Single and Dual GP104 configurations are also available.	

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, PCIe 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)



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