

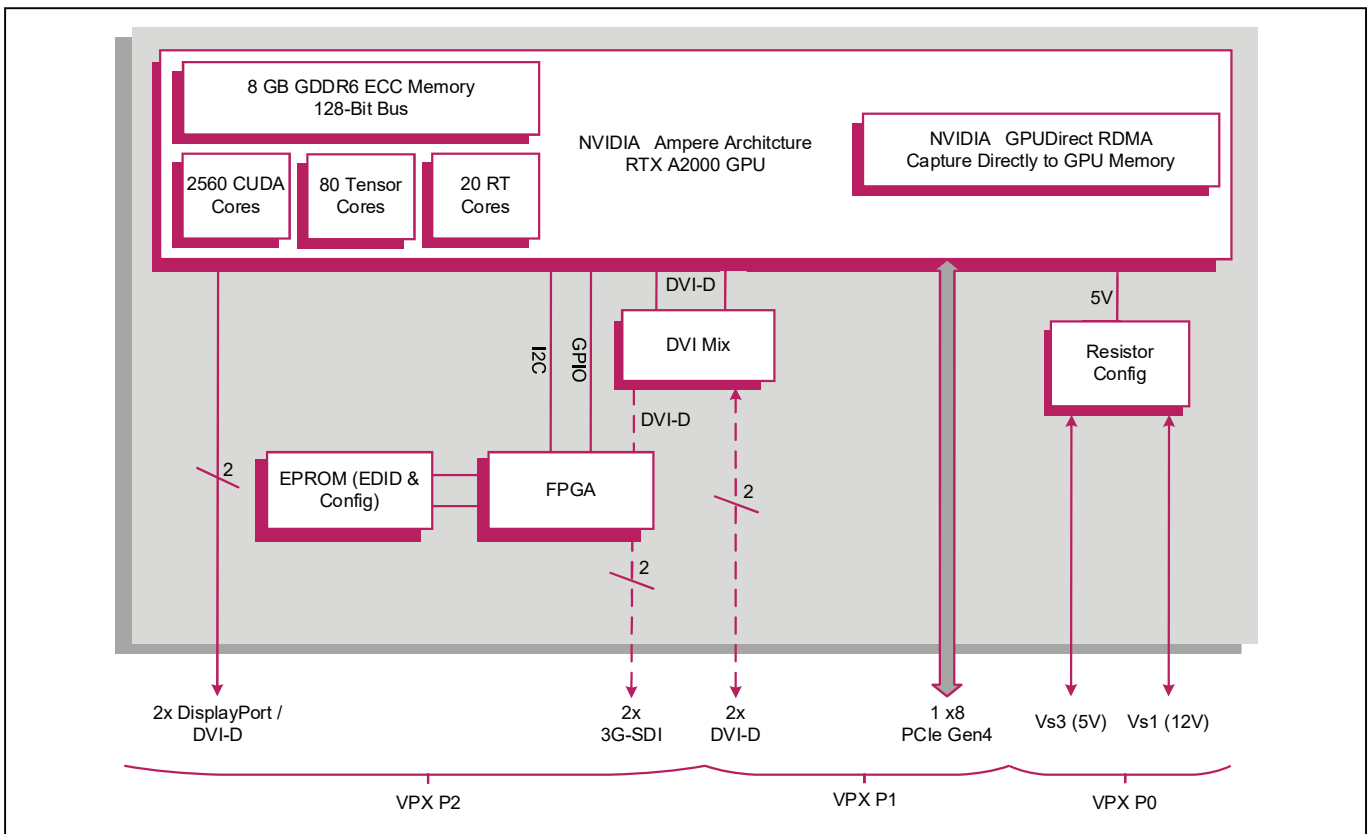
## OpenVPX Graphics and GPGPU Card Based on NVIDIA Ampere

### Key Features

The Condor GR5-A2000 is a rugged OpenVPX 3U form factor card based on NVIDIA Ampere architecture and the NVIDIA RTX platform. This highly integrated chip-down graphics and GPGPU card meets strict data integrity requirements for mission-critical applications with uncompromised computing accuracy and reliability.



- GPU-based computing supporting 2560 CUDA cores, 20 RT cores and 80 Tensor cores
- 2x the throughput for matrix operations than previous generations
- PCIe Gen4 (x4 or x8 lane)
- Real-time performance for encoding applications with dedicated H.265 and H.264 encode and decode engines



## Graphics Processor

- NVIDIA RTX A2000 GPU (Ampere Architecture)
- supports Microsoft DirectX 12, OpenGL 4.5 and Vulkan 1.2

## Graphics Memory

- 8 GB GDDR6 with ECC memory
- 128-bit Memory Interface
- up to 192 GB/s Memory Bandwidth

## GPGPU Capabilities

- 2560 CUDA Cores. 80 Tensor Cores. 20 RT Cores.
- up to 9.49 TFLOPS FP32 Single Floating Point Performance
- supports CUDA 11 (Compute Capability 7.5) and CUDA-X
- OpenCL 1.2 and Shader Model 5.1
- H.265 (HEVC) / H.264 (MPEG4/AVC) Hardware Encode and Decode
- NVIDIA GPUDirect RDMA, NVENC, NVDEC

## Video Outputs

- up to 4x video outputs accessed via P1 and P2:
  - 2x DisplayPort and 2x DVI-D or
  - 4x DVI-D or
  - 4x DisplayPort or
  - 2x DVI-D and 2x 3G-SDI

## Software Support

- supports Linux and Windows

## Electrical Specification

- 50 W (typical max)
- Vss = +5 V or +12 V
- surge currents may cause power consumption to go past 50 W temporarily

## Environmental Specification

- conduction-cooled
- operating temperature at card edge:
  - MIL-STD-810, -40 C to +85 C
- non-operating temperature:
  - MIL-STD-810, -55 C to +105 C
- 5% to 95% Relative Humidity, non-condensing

## Mechanical Specification

- 3U VPX form-factor
- slot width:
  - 0.8-inch pitch
- connectors to VITA 46.0 for P0, P1 and P2
- captive screws available to secure front handles
- operating mechanical:
  - shock - MIL-STD-810, 40g
  - random vibration - MIL-STD-810, 0.1g /H