VPX
OpenVPX

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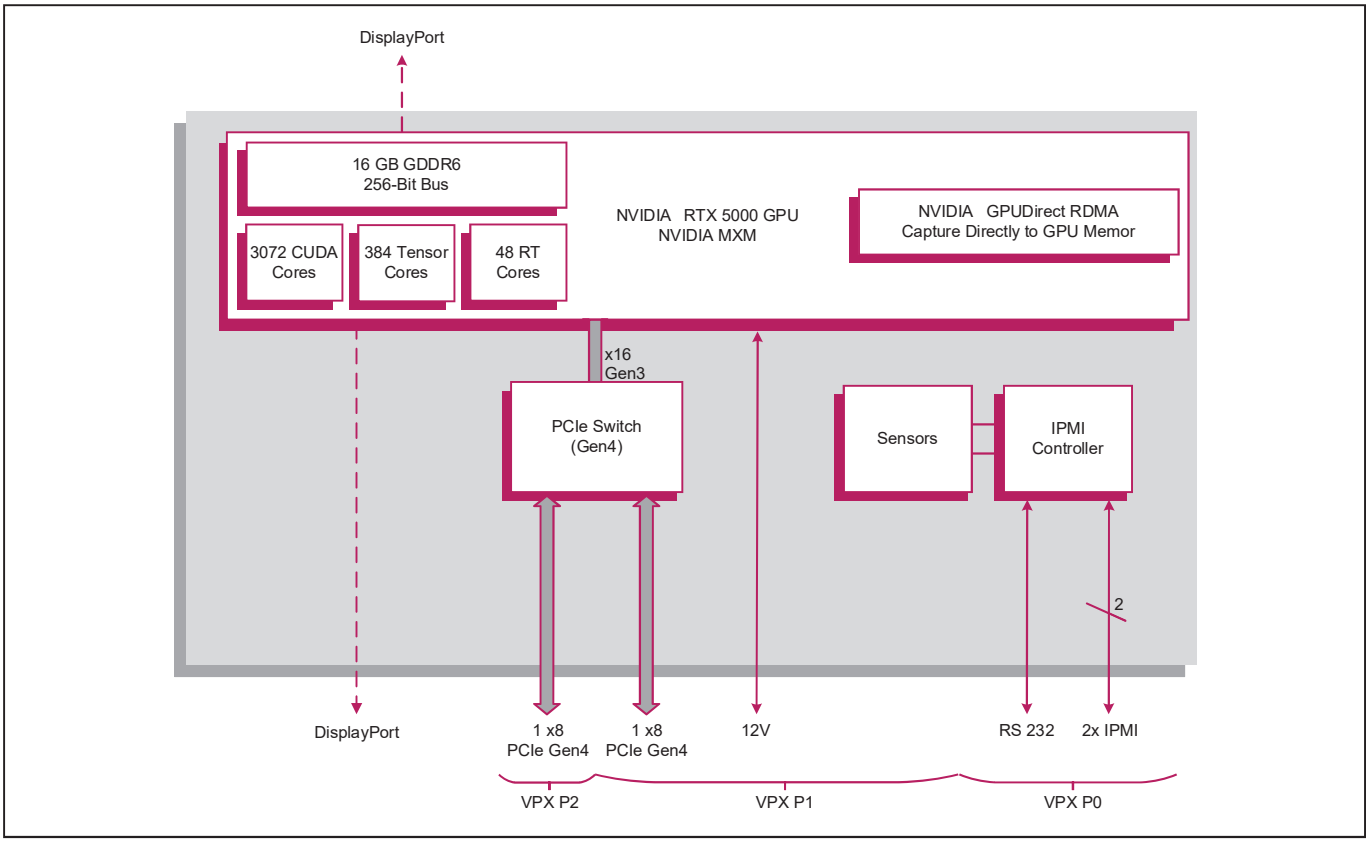
GR2S-RTX5000
RC-Series

3U VPX Graphics and GPGPU Card Based on NVIDIA Turing

Key Features

The Condor GR2S-RTX5000 is a rugged OpenVPX 3U form factor card based on NVIDIA Turing architecture and the NVIDIA RTX platform. With exceptional performance in GPGPU computing, AI inferencing, deep learning, and sensor processing, the card is ideal for ISR (Intelligence, Surveillance and Reconnaissance), EW (Electronic Warfare), DSP (Digital Signal Processing), DVE (Degraded Visual Environments) and Data Science applications.

- NVIDIA RTX 5000 MXM GPU with16 GB GDDR6 graphics memory
- Aligned with SOSA technical standard
- PCIe 3.0 (16, 8 or 4 lanes) interface on the Expansion Plane
- Customizable I/O configurations
- Real-time performance for encoding applications with dedicated H.265 and H.264 encode and decode engines



CONCURRENT TECHNOLOGIES

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Specification

VPX Graphics Board

- conduction-cooled 3U VPX Plug In Card
- compliant with VITA65.1 slot profiles:
  - → SLT3-PAY-1F1U1S1S1U1U2F1H-14.6.11
  - → SLT3-PAY-1F1U1S1S1U1U4F1J-14.6.13

Graphics Processor

- NVIDIA Quadro RTX 5000 GPU (TU104 Turing Architecture)
- supports Microsoft DirectX 12, OpenGL 4.5 and Vulkan 1.2

Graphics Memory

- 16 GB GDDR6
- 256-bit Memory Interface
- 448 GB/s Memory Bandwidth

GPGPU Capabilities

- 3072 CUDA Cores. 384 Tensor Cores. 48 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

Software Support

- supports Linux and Windows

Electrical Specification

- 12 V supply only needed
- 45-150 W (factory configurable)

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

Please contact your local Concurrent Technologies sales office for further details on board build options and accessories.

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