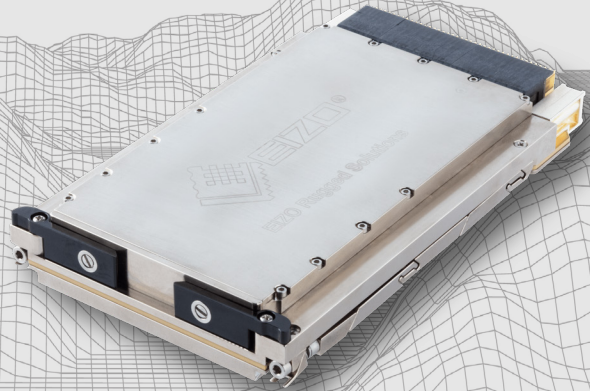


3U VPX video capture & GPGPU card based on NVIDIA Turing architecture using the NVIDIA Quadro RTX 3000 GPU; supports 3G-SDI & DisplayPort (4K UHD).



VIDEO CAPTURE & GPGPU CARD

NVIDIA Quadro RTX 3000 GPU
(TU106); 1920 CUDA Cores;
240 Tensor Cores; 30 RT Cores;
5.3 TFLOPS FP32.

HIGH PERFORMANCE EMBEDDED COMPUTING

AI inferencing, deep learning,
and dedicated H.265 (HVEC)
Codec engines.

FOUR VIDEO OUTPUTS

Four 3G-SDI/HD-SDI and one
DisplayPort output

3U VPX Video Capture & GPGPU Card with 3G-SDI / DisplayPort Outputs

The Condor GR4-RTX3000 is a rugged 3U VPX form factor card based on NVIDIA® Turing™ architecture and the NVIDIA RTX™ platform. It operates as an all-in-one solution for video capture, process, encode, decode, stream, and display. The Condor GR4-RTX3000 is a key component of High Performance Embedded Computing (HPEC) systems as this one device handles data and image processing from up to four sensors to perform activities such as image enhancement, image analysis, video stitching, remote sensing, and target acquisition, target tracking and several other data processing tasks.

Along with built-in H.265 (HEVC) / H.264 (MPEG4 AVC) hardware based encode and decode, the card also supports SDI VANC KLV metadata insertion and extraction, and is ideal for applications involving low latency video capture/display in the ISR and Signals Intelligence (SIGINT) markets.

This Condor GR4-RTX3000 card has 6 GB GDDR6 graphics memory, along with 1920 CUDA® cores and delivers up to 5.3 TFLOPS floating-point performance with CUDA™ and OpenCL™ support. It also takes full advantage of the NVIDIA GPUDirect™ RDMA to minimize latency for real-time video and data streaming. The board design is modular and allows for graphics performance upgrades in the future. The 3G-SDI I/O can be configured as HD-SDI & SD-SDI if required. The product supports PCI Express Gen 3 (8 or 4 lane) when mated with a compatible Single Board Computer (SBC). The card is available in conduction cooled with thermally efficient heatsink technology and rear I/O.



MIL-STD 810
Shock



MIL-STD 810
Temperature



MIL-STD 810
Vibration



SWaP

Condor GR4-RTX3000 Specifications

Graphics Processor	NVIDIA® Quadro RTX® 3000 GPU (Turing TU106) Supporting DirectX 12, OpenGL 4.6 and Vulkan 1.0
Interface	3U VPX Form Factor, 1" Pitch (conduction cooled) 4, or 8 Lane (factory configured). PCI Express 3.0, 2.0
Graphics Memory	6 GB GDDR6 192-bit Memory Interface 336 GB/s Memory Bandwidth
Video Outputs	Four 3G-SDI & One DisplayPort (4K UHD) (customizations available) (DisplayPort can be converted to DVI or VGA with adapters)
Video Inputs	Four 3G-SDI w/ SDI VANC KLV metadata insertion/extraction
GPGPU Capabilities	1920 CUDA Cores. 30 RT Cores. 240 Tensor Cores. Up to 5.3 TFLOPS FP32 Single Floating Point Performance CUDA 11 (Compute Capability 7.5) and OpenCL 3.0 H.265 (HEVC) / H.264 (MPEG4/AVC) Hardware Encode & Decode NVIDIA GPUDirect™ RDMA, NVENC, NVDEC
Power Consumption	50 - 125 W
Operating Temperature (MIL-STD-810)	-40°C to 75°C (Level 4 Conduction Cooled)
Vibration (MIL-STD-810)	0.1 g ² /Hz
Shock (MIL-STD-810)	40 g
Humidity (MIL-STD-810)	95% Without Condensation
Software & Platform Support	Windows or Linux on x86 VPX

Condor GR4-RTX3000 Block Diagram

