



# Condor GR2 3U VPX

## Rugged 3U VPX graphics / video card with CUDA® support

### Features

- 3U VPX form factor
- NVIDIA® Maxwell™ GPU
- GeForce® GTX 850M
- Supports NVIDIA CUDA® and OpenCL™ 1.1
- 640 CUDA cores
- 2GB GDDR5 graphics memory
- DirectX® 11.2 Shader 5.0, OpenGL 4.4 Support
- 16, 8 or 4 lane PCI Express 3.0
- Two DisplayPort outputs support up to 3840 x 2160 (4K)
- Air Cooled and Conduction Cooled variants
- Long term product availability
- Comprehensive customer care
- Ideal for rugged applications

### Markets

- Military
- Avionics
- Industrial
- Embedded Systems

### Platforms

- 3U VPX
- Windows or Linux on x86
- Other Platforms as required

The Condor GR2 3U VPX is a 3U VPX graphics / video card based on the leading edge NVIDIA® GeForce® GTX 850M that uses NVIDIA Maxwell™ GPU architecture. The Condor GR2 3U VPX offers very high performance graphics and GPGPU capability with CUDA® support for the embedded / rugged market.

The 3U VPX form factor offers higher power tolerance and hence higher performance compared to smaller rugged form factors. It also offers very high GPGPU performance using CUDA™ or OpenCL™.

The Condor GR2 3U VPX is a conduction cooled or air cooled 3U VPX card that supports PCI Express 3.0 (16, 8 or 4 lane) when mated with compatible Single Board Computers (SBCs). Two DisplayPort outputs are available from the rear VPX connectors and support up to 4K resolutions. The board can consume up to 50W based on the application.

The Condor GR2 3U VPX graphics / video card is ideal for a myriad of intense compute applications. The board design is modular to allow for graphics performance upgrades in the future.

This product is designed to withstand high temperature, shock and vibration environments and because of this, the board meets MIL-STD-810 standards.

There are many customizations that are possible such as different video outputs from the rear VPX connectors or a front I/O configuration. Please contact Tech Source for more information.

The product comes with Tech Source's commitment of support from our experienced and responsive team who can offer immediate assistance to troubleshoot and resolve any technical challenges.

Windows and Linux drivers are provided for x86 based platforms. The max power consumption of the board can be reduced by adjusting the graphics clock speed.

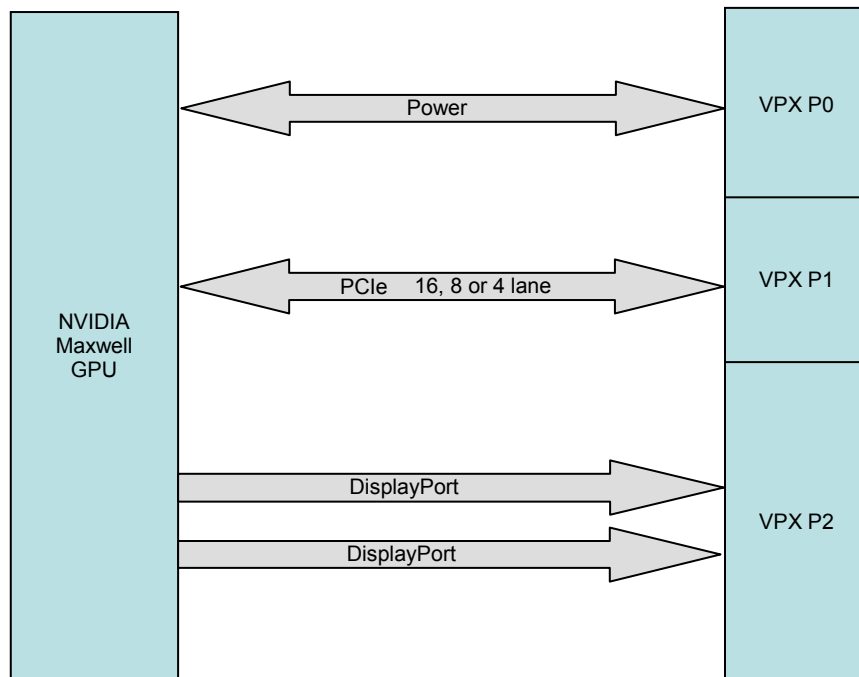
Tech Source has provided graphics solutions for almost 3 decades and has always met customer needs with long term commitment and support.

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## Condor GR2 3U VPX Specifications

<b>Graphics Processor</b>	800 Series NVIDIA® Maxwell™ GPU Architecture NVIDIA GeForce GTX 850M
<b>Interface</b>	3U VPX form factor 4, 8 or 16 Lane (factory configured). PCI Express 3.0, 2.0
<b>Graphics Memory</b>	2GB GDDR5
<b>Video Outputs (Rear VPX P2)</b>	Two DisplayPort (DisplayPort can be converted to DVI or VGA with adapters)
<b>DirectX / OpenGL Support</b>	DirectX 11.2, OpenGL 4.4
<b>OpenCL™ / CUDA™ (GPGPU computing)</b>	OpenCL™ 1.1, CUDA™ C, CUDA™ C++, DirectCompute 5.0 640 CUDA cores
<b>Power Consumption</b>	Up to 50W (based on application)
<b>Maximum Video Resolutions</b>	3840 x 2160 @ 60Hz
<b>Operating Temperature (MIL-STD-810)</b>	0°C to 55°C (Standard) -40°C to 70°C (Rugged Air Cooled) -40°C to 85°C (Rugged Conduction Cooled)
<b>Humidity</b>	95% without condensation
<b>Vibration / Shock</b>	Compliant with MIL-STD-810
<b>Software/Platform Support</b>	Windows or Linux
	x86

## Condor GR2 3U VPX Block Diagram



For Customizations involving I/O or Pin-outs, please contact [embeddedgraphics@techsource.com](mailto:embeddedgraphics@techsource.com)

# Tech Source

An EIZO Group Company

442 Northlake Blvd,  
Altamonte Springs, FL 32701, USA  
407.262.7100

[www.techsource.com](http://www.techsource.com)

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