



Condor 2106xF

High Performance XMC Graphics with Dual HD-SDI/DVI/HDMI Video Inputs

Features

- 512 MB Frame Buffer
- XMC Form Factor
- 2D/3D graphics (OpenGL)
- Front Panel Connectors
- Two Mini DisplayPort Outputs (Can be DVI or VGA) or Two RGB (STANAG 3350B/RS-343), One TV (NTSC/PAL/RS-170) or One VGA
- Two High Definition Inputs (HD/SD-SDI, HDMI or DVI)
- Outputs up to 1920x1200
- Convection Cooled
- Rugged/Extended Temperature

Markets

- Military/Avionics/Defense
- UAV/UAS/UGV
- Embedded Systems
- Surveillance

Platforms

- Windows/Linux based Single Board Computers
- VME, VPX, cPCI
- VxWorks (optional)

The Condor 2106xF delivers in embedded system environments with the form factor and features required in defense, command and control, training and simulation, surveillance and radar display. It is designed for seamless integration with most Single Board Computers (SBC).

Condor 2106xF supports two video outputs at a time from the front panel. In the default configuration it has two Mini DisplayPort connectors mounted on the front panel which can be converted with standard adapters to support two DVI or VGA outputs. The card may also be configured to support two RGB, (STANAG 3350/RS-343), one TV (NTSC/PAL/RS-170), or one VGA through a standard D-sub connector. Please note that the input and output types are factory configured to meet your specific needs.

In the default configuration, the product accepts two high definition video inputs in HD/SD-SDI format through HD-BNC connectors. Additionally, it can be configured to support two HDMI/DVI video inputs through mini-HDMI connectors. The multiple input streams are displayed on either of the two outputs and can be positioned or sized (enlarge or shrink). An API is provided for customer integration. Applications can access video

streams in the form of raw frames for processing, 360° stitching, frame/video analysis, compression or video streaming. All decoding, scaling, video combining and format conversions can be done in the GPU with minimal CPU impact.

This product is also optionally available as a capture card only. Without the GPU or video outputs the power consumption can be reduced to a maximum of 10W.

Condor 2106xF is available in various ruggedized levels. While Windows and Linux drivers are available by default, other real time operating systems (RTOS) such as VxWorks, Integrity and LynxOS will be supported on both x86 and PowerPC platforms.

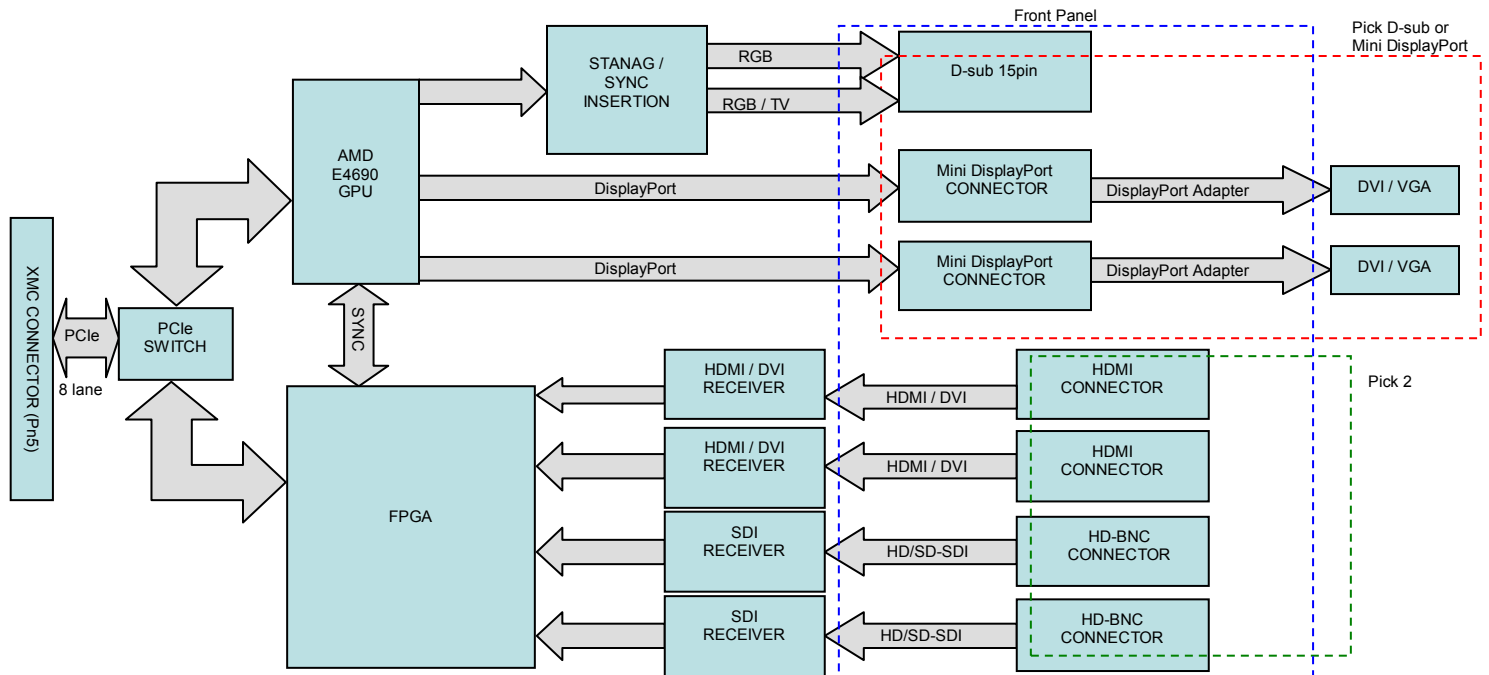
Tech Source has provided graphics solutions for over 28 years. Responsiveness has been the key to our success. Product customizations or new designs can be developed in a short time to meet your needs. The product comes with Tech Source's commitment of availability for up to 10 years from the date of release and product support up to 15 years.

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Condor 2106xF Specifications

Graphics Processor	ATI E4690 GPU supporting OpenGL 3.0 and DirectX 10.1 w/ Native PCI Express interface (1.0a, 1.1 and 2.0 compliant)
Interface	XMC form factor, 8 Lane PCI Express Interface
Graphics Memory	512MB GDDR3 memory
Maximum Video Output Resolution	1920x1200 (HDMI/DVI/Mini DisplayPort)
Video Outputs (Front Panel)	Two Mini DisplayPort (converted to DVI or VGA with adapters) OR Two RGB (STANAG 3350B/RS-343), One TV(NTSC/PAL/RS-170) or One VGA [D-sub connector].
Video Inputs	Two HDMI/DVI (HDMI connector) OR Two HD/SD-SDI (HD-BNC connector) Can mix one and one.
Power Rating	Less Than 32 Watts (Can be configured to be as low as 22W)
Operating Temperature	0°C to 55°C (Standard)
	-40°C to 70°C (Rugged Convection cooled)
Non-operating Temperature	-55°C to 105°C
Vibration (random)	0.04 g ² /Hz (15-2K Hz) (Standard), 0.1 g ² /Hz (15-2K Hz) (Rugged Convection cooled)
Shock	20g peak (Standard), 40g peak (Rugged Convection Cooled)
Conformal Coating	Optional
Humidity	95% without condensation
Dimensions and Weight	74mm x 149mm; 10mm Stacking Height; 5.6 oz
Software/Platform Support	Windows or Linux (OpenGL)
	RTOS support—VxWorks (others as needed)
	x86 (now), PowerPC (future)

Condor 2106xF Block Diagram



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