

Rugged XMC graphics & video capture cards based on the AMD Radeon E4690 GPU with multiple video input and output formats.

AMD
EMBEDDED
SOLUTIONS

PARTNER



RUGGED XMC

Graphics & Video Capture
Solution

HIGH-PERFORMANCE GRAPHICS

AMD Radeon™ E4690 GPU
512 MB GDDR3 graphics
memory

TWO VIDEO INPUTS/OUTPUTS

Multiple product variants
with customizable I/O
configurations

XMC Graphics & Video Capture Card with Two Inputs/Outputs

The Condor 2100 is a series of XMC form factor graphics/video cards for embedded systems such as VPX, VME and CompactPCI. Based on the E4690 GPU from AMD, the Condor 2100 XMC Series products are built with superior graphics features and includes hardware acceleration of H.264 and VC-1 HD video as well as MPEG-2, enabling multiple HD video streams.

The Condor 2100 XMC Series uses the AMD Radeon E4690 GPU with 512 MB GDDR3 graphics memory and support for CUDA® and OpenCL™. It features multiple inputs and outputs (based on the product variant) and supports various video input formats including TV (NTSC, PAL, SECAM), DVI/HDMI, HD-SDI, SD-SDI, RS-170, RS-343, RGB, and STANAG. The two input streams are displayed on either of the two outputs and can be positioned or sized (zoom/pan capability) under software control. Individual video captured frames are available to applications for processing and compression. All decoding, scaling, video combining and format conversions are done in the GPU with minimal CPU impact.



MIL-STD 810
Shock



MIL-STD 810
Temperature



MIL-STD 810
Vibration



SWaP

Condor 2100 XMC Series Specifications

Interface

XMC 1.0 or XMC 2.0
8 Lane PCIe 2.0

Graphics Processor

AMD Radeon E4690 GPU
Supporting OpenGL 3.0, DirectX 10.1

Graphics Memory

512 GB GDDR3
128-bit Memory Interface
22.4 GB/s Memory Bandwidth

GPGPU Capabilities

320 Shader Processors
Up to 384 GFLOPs FP32 Single Floating Point Performance
H.264, VC-1, MPEG-2 Video Decode
Shader Model 4.0

Video Outputs

Two Multi-Function Video Outputs
See below Product List table for options

Video Inputs

Two Video Input Channels
(See below Product List table for options)

Software & Platform Support

Windows or Linux on x86
RTOS Support - VxWorks (others as needed)

Operating Temperature (MIL-STD-810)

-40°C to 85°C (Rugged Conduction Cooled)
-40° to 70°C (Rugged Air Cooled)

Power Consumption

10 - 30 W

Vibration (MIL-STD-810)

0.1 g²/Hz

Shock (MIL-STD-810)

40 g

Humidity (MIL-STD-810)

95% Without Condensation

Condor 2100 XMC Series Product List

		Product Name				
		Condor 2101xP (Rear PMC Video. VME Style Pin-Out. Air Cooled and Conduction Cooled)	Condor 2101xF (Front Video. Air Cooled)	Condor 2101xX (Rear XMC Video. VPX Style Pin-Out. Air Cooled and Conduction Cooled)	Condor 2104x (Rear PMC Video. VME Style Pin-Out. Air Cooled and Conduction Cooled)	Condor 2106xF (Front Video. Air Cooled)
Output Type	VGA	2	1 (fo)	2	2	1 (fo)
	DVI / HDMI	2	2 (fo)	NA	2	2 (fo)
	RS-343	2	2 (fo)	2	2 (fo) (nre)	2 (fo)
	RS-170 (3 wire)	2 (nre)	2 (fo) (nre)	2	2 (fo)	2 (fo) (nre)
	STANAG 3350 A/B/C	2 (nre)	2 (fo) (nre)	2	2 (fo)	2 (fo) (nre)
	TV / RS-170 (1 wire)	1 (fo)	1 (fo)	NA	1 (fo)	1 (fo)
	DisplayPort	NA	2 (mini) (Can be converted to VGA or Single-Link DVI using an off the shelf adapter or EIZO's Adapt product line)	NA	NA	2 (mini) (fo) (Can be converted to VGA or Single-Link DVI using an off the shelf adapter or EIZO's Adapt product line)
Input Type	VGA	2	1 or 2 (pseudo) (fo)	NA	1	NA
	DVI / HDMI	NA	NA	NA	1	2 (fo)
	RS-343	2 (fo)	2 (fo)	2	1 (fo) (nre)	NA
	RS-170 (3 wire)	2 (fo) (nre)	2 (fo) (nre)	2	1 (fo) (nre)	NA
	STANAG 3350 A/B/C	2 (fo) (nre)	2 (fo) (nre)	2	1 (fo) (nre)	NA
	TV / RS-170 (1 wire)	2	2	NA	1	NA
	HD-SDI	NA	NA	NA	NA	2 (fo)

(fo) = Factory option. (nre) = Non-recurring engineering fee may be required. (pseudo) = Shared DDC. Uses EIZO Rugged Solutions' cable
(mini) = Mini DisplayPort. NA = Not Available. Note: Maximum two video inputs and two video outputs at a time.