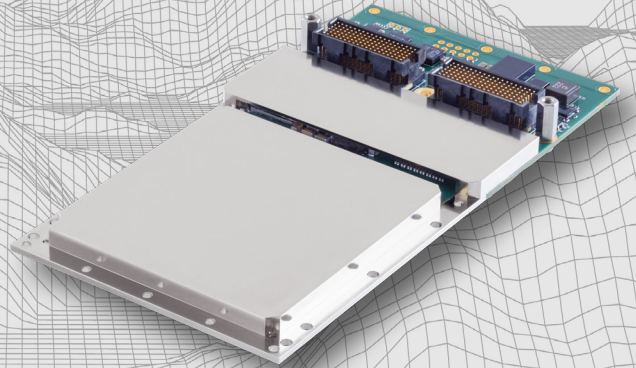


Rugged XMC graphics and video capture card outputs based on the AMD Radeon E8860 GPU with two 3G-SDI video inputs and outputs.

**AMD
EMBEDDED
SOLUTIONS**

PARTNER



LOW LATENCY VIDEO CAPTURE

Rugged XMC Graphics Card
with Video Capture

DUAL 3G-SDI I/O

Two 3G-SDI Inputs/Outputs.
One VGA/RGsb and one
DisplayPort Output.

HIGH-PERFORMANCE GPU

AMD Radeon™ E8860 GPU
2 GB GDDR5 graphics memory

XMC Graphics & GPGPU Card with Two 3G-SDI Video Outputs/Input

The Condor 4107xX is a rugged, conduction cooled XMC graphics and video capture card based on the AMD Radeon E8860 GPU with two 3G-SDI video inputs and outputs. This product is designed for seamless integration with VPX Single Board Computers (SBC). The Condor 4107xX supports two 3G/HD/SD-SDI, one DisplayPort and one VGA or RGsb (STANAG 3350, RS-343) video output.

It also captures up to two simultaneous 3G-SDI video inputs, brings the data into GPU memory with extremely low latency, and can be used for compute intensive GPGPU applications. Applications can access the captured video data in the form of raw frames for image 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 enables developers to capture video data from a camera or other SDI source, perform video tracking or analysis on the data using the GPU, and then send the 3G-SDI video on to a compatible display device, such as a monitor. The input streams can be displayed on any of the outputs and can be positioned or sized (enlarged or shrunk). VCE 1.0 (Video Codec Engine) and UVD 4.0 (Unified Video Decoder) and can be used to hardware encode or decode H.264 video. The card is available in conduction cooled with rear XMC I/O on Pn6.



MIL-STD 810
Shock



MIL-STD 810
Temperature



MIL-STD 810
Vibration



SWaP

Condor 4107xX Specifications

Interface

XMC 1.0 or XMC 2.0
8 Lane PCIe 3.0

Graphics Processor

AMD Radeon E8860 GPU
Supporting OpenGL 4.2, DirectX 11.1 and Shader 5.0

Graphics Memory

2 GB GDDR5
128-bit Memory Interface
72 GB/s Memory Bandwidth

GPGPU Capabilities

640 Shader Processors
Up to 768 GFLOPs FP32 Single Floating Point Performance
H.264 Hardware Decoder UVD 4.0 (Unified Video Encoder)
H.264 Hardware Encoder VCE 1.0 (Video Codec Engine)
OpenCL, DirectCompute

Video Outputs

Two 3G-SDI (1080p60) / HD-SDI (1080p30) / SD-SDI (480p)
One DisplayPort++ (converted to DVI or VGA with adapters)
One VGA / RGB Sync-on-green (STANAG 3350 / RS-343)
Rear Pn6 XMC I/O. VITA 46.9 x12d+x8d+24s

Video Inputs

Two 3G-SDI, HD-SDI or SD-SDI

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)

Power Consumption

20 - 45 W

Vibration (MIL-STD-810)

0.1 g²/Hz

Shock (MIL-STD-810)

40 g

Humidity (MIL-STD-810)

95% Without Condensation

Condor 4107xX Block Diagram

