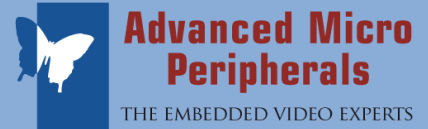


AVC8000XMC

8x D1 Video Frame Grabber XMC PCI-Express card



The AVC8000XMC is a high-performance 8-channel video capture and overlay controller on a single XMC Expansion module. The AVC8000XMC provides a powerful and flexible solution for capturing up to eight concurrent analog video inputs for local system display or software analysis and processing, ideal for embedded Situational Awareness systems in the most demanding environment.



The AVC8000XMC allows each of the 8 video channels to be captured at full D1 size, all at full frame rate. The captured video data can be streamed continuously to system memory or disk for either immediate local display or further processing. The capture engine of the AVC8000XMC features hardware color space conversion to present the captured video data in the format best suited to the end application.

The AVC8000XMC is a standard compliant single width CMC card using the switched XMC, PCI-Express fabric for maximum performance.

The AVC8000XMC is supported by drivers for Windows and Linux.

Rev A.00
Subject to change without notification

Advanced Micro Peripherals Ltd
Cambridge, CB6 2HY, England
Tel (+44) 1353 659500
Fax (+44) 1353 659600
sales@ampitd.com
<http://www.ampitd.com>

Advanced Micro Peripherals Inc
New York, NY10016, USA
Tel (+1) 212 951 7205
Fax (+1) 212 951 7206
sales@amp-usa.com
<http://www.amp-usa.com>

Live Frame Capture
up to 8 full size D1
PAL/NTSC/RS-170
video inputs at full
frame rate.



AVC8000XMC

8x D1 Video Frame Grabber XMC PCI-Express card



**Advanced Micro
Peripherals**

THE EMBEDDED VIDEO EXPERTS



Applications

High performance image capture

Vehicle-based Video Capture

Real-time Situational Awareness

Law Enforcement

Crime Scene Recording

Remote Video Surveillance

Multi-camera Security Application

Asset Monitoring

Traffic Monitoring and Control

Video Acquisition and Analytics

Multi-Camera video
preview to system

VGA

Very Low Latency

Advanced Micro Peripherals Ltd
Cambridge, CB6 2HY, England
Tel (+44) 1353 659500
Fax (+44) 1353 659600
sales@amp ltd.com
<http://www.amp ltd.com>

Advanced Micro Peripherals Inc
New York, NY10016, USA
Tel (+1) 212 951 7205
Fax (+1) 212 951 7206
sales@amp-usa.com
<http://www.amp-usa.com>



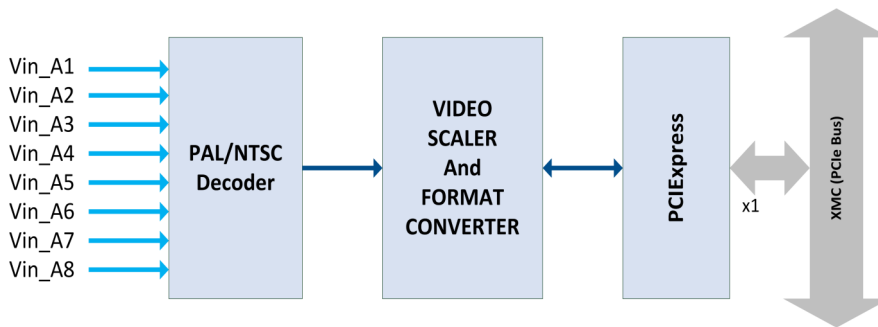
AVC8000XMC

8x D1 Video Frame Grabber XMC PCI-Express card



**Advanced Micro
Peripherals**

THE EMBEDDED VIDEO EXPERTS



AVC8000XMC Functional Diagram

Windows
DirectShow
and
Linux V4L
support

Features

- 8 Live NTSC/PAL/RS-170 video inputs
- 8 x D1 size capture at full frame rate
- Windows DirectShow/DirectDraw support
- Efficient PCI DMA cycle operation
- Linux Video4Linux support
- Drivers for Windows, Linux
- Robust XMC Expansion card
- Low Power Operation

Advanced Micro Peripherals Ltd
Cambridge, CB6 2HY, England
Tel (+44) 1353 659500
Fax (+44) 1353 659600
sales@amp ltd.com
<http://www.amp ltd.com>

Advanced Micro Peripherals Inc
New York, NY10016, USA
Tel (+1) 212 951 7205
Fax (+1) 212 951 7206
sales@amp-usa.com
<http://www.amp-usa.com>



XMC Interface

PCI Express 2.0 compliant
 x1 PCI Express port
 Live video capture to display, memory or disk

Analog Video Input

Front I/O via 8x MMCX connectors.
 Up to 8 concurrent composite PAL or NTSC video input channels
 Eight 10-bit Analog-to-Digital converters
 Anti-aliasing filters on inputs

Video Input Formats

NTSC-M, NTSC-Japan, NTSC (4.43), RS-170
 PAL-B,G,N, PAL-D, PAL-H, PAL-I, PAL-M, PAL-CN, PAL-60
 SECAM

Video Input Adjustments

Contrast (or luma gain) adjustable from 0 - 255% of original
 Saturation (or chroma gain) adjustable from 0 - 200% of original
 Hue (or chroma phase) adjustable from -36° to $+36^{\circ}$
 Brightness (or luma level) can be adjusted from -128 to 127 steps
 Software adjustable Sharpness, Gamma and noise suppression

Video Capture Formats

RGB555, RGB565
 YCbCr 4:2:2
 YCbCr 4:1:1

System Requirements

x86 host with XMC socket
 Host VGA display (if video preview to host is required)

Environmental

Operating temp 0°C to 60°C
 Operating temp -40°C to $+85^{\circ}\text{C}$ (extended temp option)

Mechanical

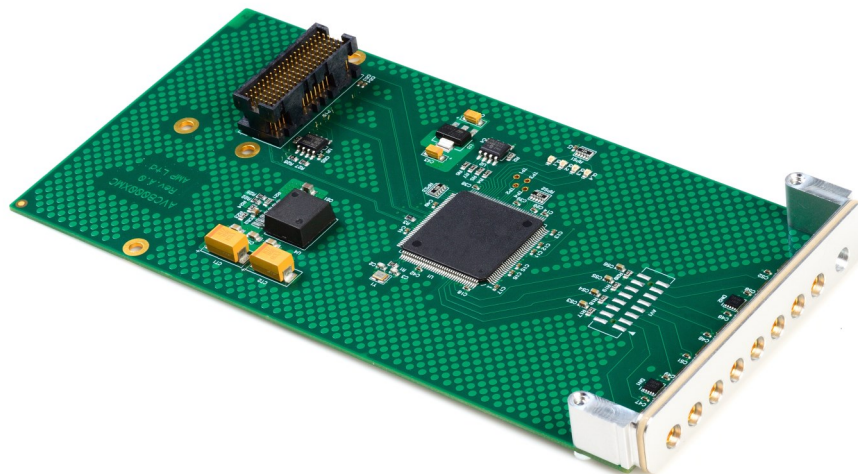
Single-width CMC (Common Mezzanine Card)
 IEEE 1386 form factor (74mm x 149mm)

Software Drivers

Drivers for Windows, Linux
 Sample video overlay and capture application in C/C++ source code

Ordering Information

AVC8000XMC	Video Capture and Overlay Controller (0 to 60°C)
AVC8000XMC-EXT	Video Capture and Overlay Controller (-40°C to $+85^{\circ}\text{C}$)

**AVC8000XMC**