

AVC8000M2

8x D1 Video Frame Grabber M.2 module



**Advanced Micro
Peripherals**

THE EMBEDDED VIDEO EXPERTS

The AVC8000M2 is a high-performance 8-channel video capture and overlay controller on a single M.2 form factor PCI Express card. The AVC8000M2 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.



Live Frame Capture

up to 8 full size D1

PAL/NTSC/RS170

video inputs at full

frame rate.

The AVC8000M2 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 AVC8000M2 features hardware color space conversion to present the captured video data in the format best suited to the end application.

The AVC8000M2 is supported by drivers for Windows and Linux.

Rev 1.01

PRELIMINARY INFORMATION - Subject to change without notification

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

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



PC/104

Embedded PC Modules

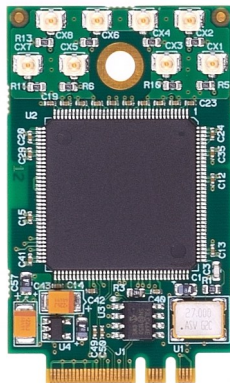
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AVC8000M2

Multi-Camera video
preview to system
display

Very Low Latency

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

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PC/104

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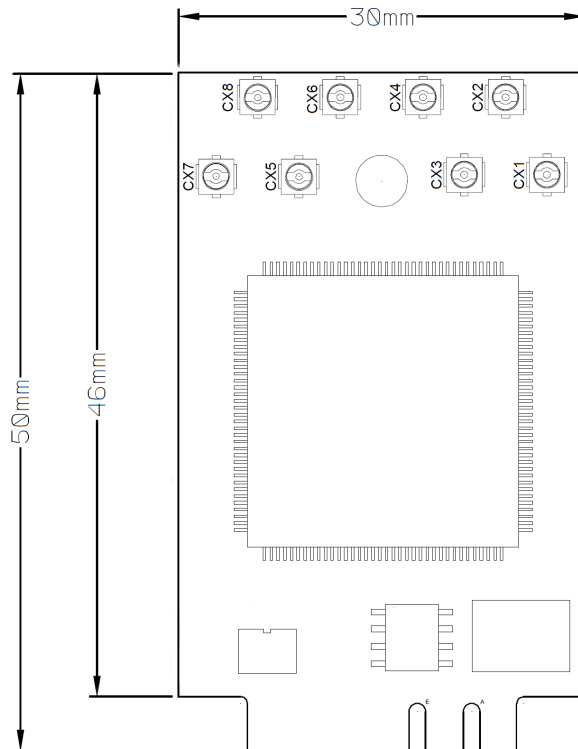
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AVC8000M2 Mechanical Drawing

Windows
DirectShow
and
Linux V4L2
support

Features

- 8 Live NTSC/PAL video inputs
- 8 x D1 size capture at full frame rate
- Windows DirectShow/DirectDraw support
- Linux Video4Linux2 support
- Efficient PCI DMA cycle operation
- Drivers for Windows, Linux
- Robust M.2 3050 Type A+E module (mounting for 3042)
- PCIe x1 Host interface
- Low Power Operation



PC/104

Embedded PC Modules

Host Interface

M.2 Key A+E (PCIe Gen 1 x1)
Live video capture to display, memory or disk

Analog Video Input

Up to 8 concurrent composite PAL or NTSC video input channels
u.FL input connector
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°
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

M.2 Type A or E socket
PCIe Display (if Video Preview to host is required)

Mechanical

M.2 Type A+E 3050 module.
30mm wide, 50mm long module.
Rugged mounting compatible with 3042 module mounting.

Miscellaneous

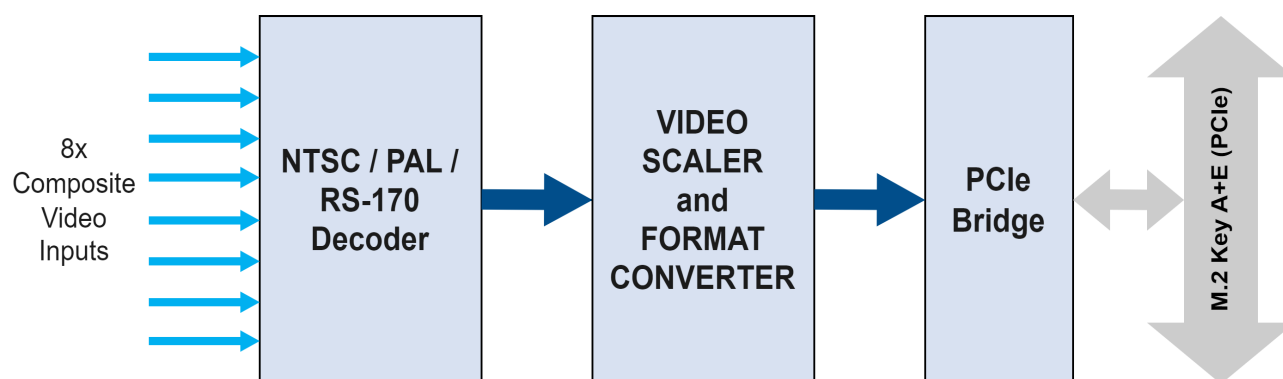
Operating temp -40°C to +85°C

Software Drivers

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

Ordering Information

AVC8000M2-EXT Video Capture and Overlay Controller
(-40°C to +85°C)

**AVC8000M2 Functional Diagram**

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