AVC8000M2

8x D1 Video Frame Grabber M.2 module

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.

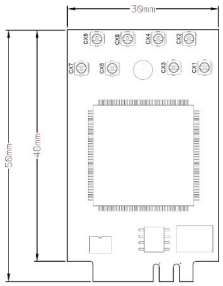
The AVC8000M2 allows each of the 8 video channels to be captured at full D1 size, all at full frame rate. The captured video data can be streamed continuously to system memory or disk for either immediate local display or further processing. The capture engine of the AVC8000M2 features hardware color 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.

AVC8000M2

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



AVC8000M2 Mechanical Drawing

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

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THE EMBEDDED VIDEO EXPERTS

Live Frame Capture up to 8 full size D1 PAL/NTSC/RS170 video inputs at full frame rate.

Multi-Camera video preview to system display

Very Low Latency

Windows DirectShow and Linux V4L2 support

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AVC8000M2

Rev 1.00

8x D1 Video Frame Grabber M.2 module

Technical Specification

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

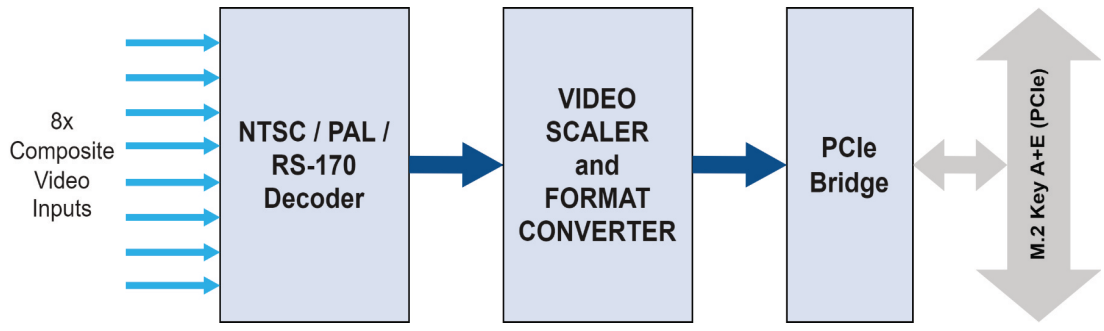
System Requirements
x86 PC-Compatible with M.2 Type A or E socket
PCIe Display (if Video Preview to host is required)

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

Rev 1.00
PRELIMINARY INFORMATION - Subject to change without notification

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