

AVC8000S

8x D1 Video Frame Grabber for PCIe

The AVC8000S is a high-performance 8-channel video capture and overlay controller on a single PCI Express x1 card. The AVC8000S provides a powerful and flexible solution for capturing up to eight concurrent analog video inputs for software analysis and processing or local system display

The AVC8000S supports capturing all 8 of the video channels to be captured at full D1 resolution and at full frame rate. The video can be scaled, cropped and positioned under software control.

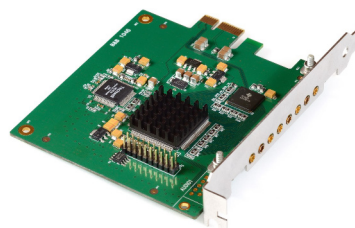
The capture engine of the AVC8000S features hardware color space conversion to present the captured video data in the format best suited to the end application. The captured video data can then be streamed continuously over the PCI Express bus to system memory or disk for either immediate local display or further processing as required by the application.

The AVC8000S is supported by drivers for Windows and Linux. .



Applications

- Video overlay for UAV ground station
- Vehicle-based Video Capture
- Remote vehicle video link
- 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



AVC8000S

Features

- 8 Live NTSC/PAL video inputs
- 8 x D1 size capture at full frame rate
- Arbitrary video window sizing, cropping and scaling
- Windows DirectShow/DirectDraw support
- Efficient PCI DMA cycle operation
- Linux Video4Linux support
- Drivers for Windows, Linux
- Industry standard PCI Express x1 card
- 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

VGA

Very Low Latency

Windows

DirectShow

and

Linux V4L

support



AVC8000S

Rev A.02

8x D1 Video Frame Grabber for PCIe

Technical Specification

PCI Express Bus Interface

Single x1 PCI Express Link
 Live video capture to display, memory or disk

Analog Video Input

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

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

Video Processing

Arbitrary sizing, cropping, scaling of each video channel

System Requirements

x86 PC-Compatible PCI Express Host Computer
 PCI VGA Display (if Video Preview to host is required)

Miscellaneous

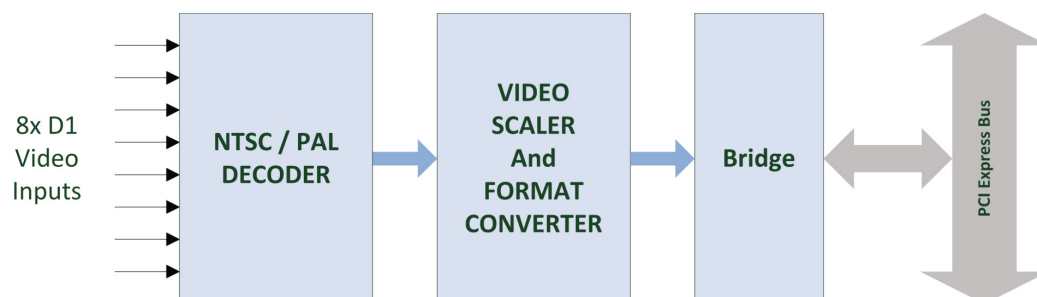
Single +3.3V supply
 Operating temp 0°C to 60°C
 Operating temp -40°C to +85°C (extended temp option)

Software Drivers

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

Ordering Information

AVC8000S	Video Capture and Overlay Controller (0 to 60°C)
AVC8000S-Ext	Video Capture and Overlay Controller (-40°C to +85°C)



AVC8000S Function Diagram



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THE EMBEDDED VIDEO EXPERTS

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