The AVC8000X is a high-performance 8-channel video capture and overlay controller on a single PC/104-Express form factor card. The AVC8000X 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 AVC8000X allows each of the 8 video channels to be captured at full D1 size, all at full frame rate. The video can be scaled, cropped and positioned under software control. In addition to the video capture the AVC8000X also provides capture of up to 8 mono audio sources.

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 AVC8000X features hardware color space conversion to present the captured video data in the format best suited to the end application.
The AVC8000X is supported by drivers for Windows XP-Embedded and Linux.

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
Features

8 Live NTSC/PAL video inputs
8 x D1 size capture at full frame rate
8 Mono Audio inputs
Arbitrary video window sizing, cropping and scaling
Windows DirectShow/DirectDraw support
Efficient PCI DMA cycle operation
Linux Video4Linux support
Drivers for WinXP-E, Linux
Robust PC/104-Express construction
Low Power Operation
PC/104-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
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

Audio Inputs
8 mono audio inputs
10-bit Analog-to-Digital Converter per channel

Audio Capture Format
8-bit PCM

Video Processing
Arbitrary sizing, cropping, scaling of each video channel

System Requirements
x86 PC-Compatible PC/104-Express Host Computer
PCI VGA Display (if Video Preview to host is required)

Miscellaneous
Single +5V supply
Operating temp 0°C to 60°C
Operating temp –40°C to +85°C (extended temp option)
PCI/104-Express form factor

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

Ordering Information
AVC8000X Video Capture and Overlay Controller
(0 to 60°C)
AVC8000X-Ext Video Capture and Overlay Controller
(-40°C to +85°C)

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