AVC-VPX

8x D1 Video Frame Grabber 3U VPX card

The AVC-VPX is a high-performance 8-channel video capture and overlay controller on a 3U VPX module. The AVC-VPX provides a powerful and flexible solution for capturing up to eight concurrent analog video inputs for local system display or software analysis and processing. The AVC-VPX is ideal for SWaP optimized, mission-critical applications.

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

The AVC-VPX is supported by drivers for Windows 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

AVC-VPX

Features
8 Live NTSC/PAL/RS-170 video inputs
4 x Audio input
8 x D1 size capture at full frame rate
Windows DirectShow/DirectDraw support
Efficient PCIe DMA cycle operation
Linux Video4Linux support
Drivers for Windows, Linux
Conduction cooled 3U VPX module
Low Power Operation

Advanced Micro Peripherals
THE EMBEDDED VIDEO EXPERTS

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

Conduction cooled 3U VPX module

Multi-Camera video preview to system VGA

Very Low Latency

Windows DirectShow and Linux V4L support

OpenVPX™

Sistemi Avanzati Elettronici S.r.l.
Via Marconi, 11D - 13836 Cossato (BI)
+39 015 983206 | info@sisav.it | www.sisav.it

AVC-VPX

Rev A.00

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Technical Specification

VPX Interface
3U VPX (VITA 46)
1x PCIe x1 on VPX-P1 (VITA 46.4)
8x Composite video input on VPX-P2
4x Audio input on VPX-P2
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°
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
4 mono audio inputs
10-bit Analog-to-Digital Converter per channel

Audio Capture Format
8-bit PCM

System Requirements
Host VGA display (if video preview to host is required)

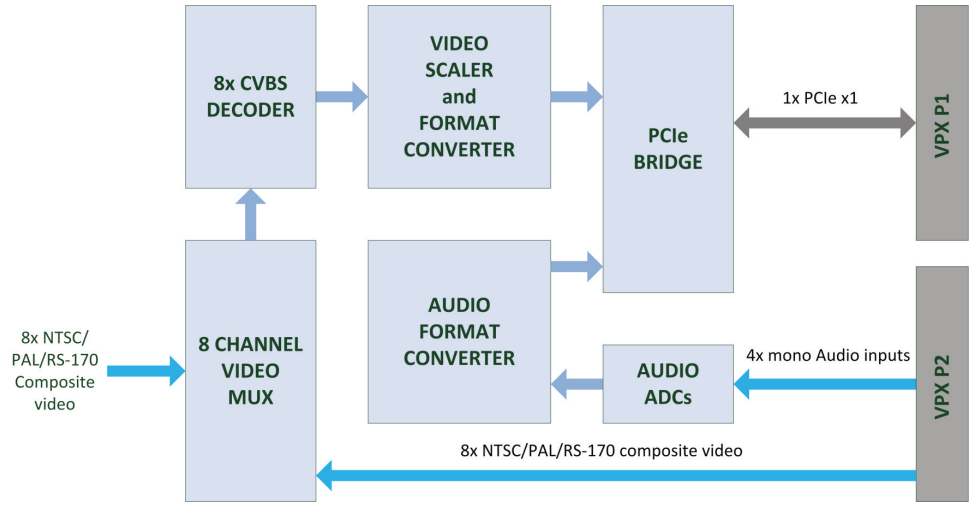
Environmental
Operating temp –40˚C to +85˚C
Conduction cooled 3U VPX module

Mechanical
3U OpenVPX (VITA 65)

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

Ordering Information
AVC-VPX-EXT Video Capture and Overlay Controller (-40˚C to +85˚C)

Note: All information preliminary and subject to change.



AVC-VPX Functional Diagram

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