

PRODUCT BRIEF

USB VIDEO CAPTURE REFERENCE DESIGN

FEATURES

- n The Video Inlet is a USB plug and play peripheral for real-time capture of full motion video to the PC
- n High-quality, low-cost and easy-to-use solution
- n Input is standard NTSC or PAL composite video from camcorder, VCR, desktop camera or TV
- n Output signal is USB compliant, can be connected to any USB port
- n There are two output modes: MJPEG compressed video and 4:2:2 uncompressed YUV video
- n Capture resolutions in NTSC/PAL are:
Full (704 X 480/576), CIF (352 X 240/288) and QCIF (176 X 120/144)
- n Real-time capture (30 fps in NTSC, 25 fps in PAL) of CIF resolution in MJPEG compression mode
- n Capture of uncompressed QCIF resolution video at 15 fps
- n Audio is captured simultaneously using the PC sound card
- n Software drivers are for Windows 95 and Windows 98, supporting Video For Windows applications
- n JPEG software decoder included for real-time display while capturing and for playback from a file
- n JPEG software encoder included to support video editing applications
- n Hot attach / detach, no reboot, no need to open PC box
- n Supports OHCI and UHCI USB controllers and Microsoft USBD software stack
- n Complete reference design kit contains evaluation board, documentation, schematics, bill of materials and software in object code
- n Royalty free license provided for software drivers distribution
- n Drivers source code also available
- n Based on Zoran field proven MJPEG codec technology

APPLICATIONS

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|---|--|---------------------------------|
| n Video capture of real time clips | n Video on the web | n Video for training |
| n Capture of still images | n Desktop video conferencing (e.g. NetMeeting) | n Video in educational titles |
| n Video editing (e.g. VideoWave, MediaStudio) | n Video clips in presentations (Power Point) | n Video clips for entertainment |
| n Video mail | | n Photo album |

DESCRIPTION

The Video Inlet is an external USB box that enables connection of any composite video source from a standard camera, VCR, TV set or camcorder and transfer into the PC in compressed format (optional). This high quality video can be used in the PC for storage onto the hard disk, video editing, or sending as video mail. It works also with video conferencing applications and for

video servers on the web. The video is decompressed in software by the CPU and displayed on the PC monitor. The main advantages of the Video Inlet are its high-quality and simple installation. It supports hot attach / detach to the USB port and there is no need to open the PC box or to reboot the system.

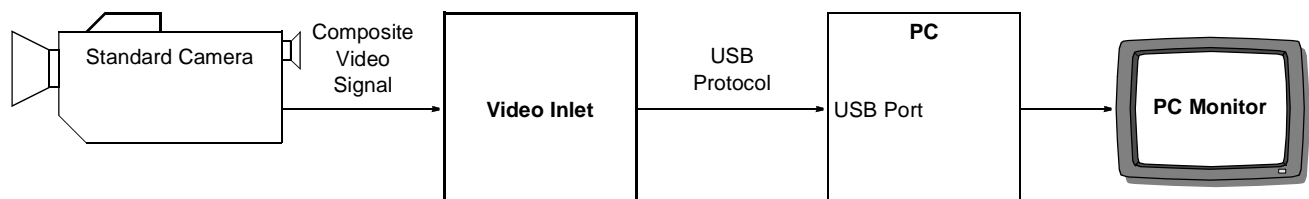


Figure 1. Video Inlet System Block Diagram

Functional Description

The main components of the Video Inlet are depicted in the detailed block diagram below. Three modes of operation are supported: MJPEG real-time capture, uncompressed YUV capture and still image full resolution capture. The system is capable of capturing up to CIF resolution real-time video with

simultaneous display on the PC monitor. This high quality video is enabled by using the Zoran ZR36060 Integrated JPEG codec. The Video Inlet, bundled with simple to use video capture and editing applications, will create the market for low-cost video capture and editing on the PC.

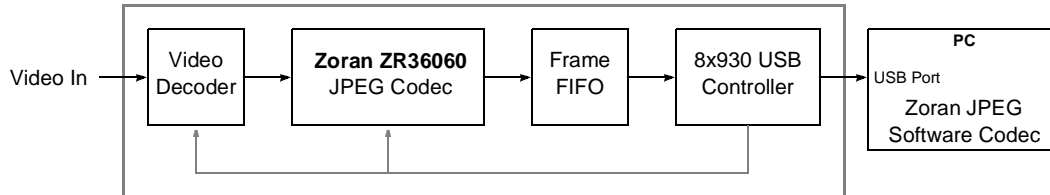


Figure 2. Video Inlet Detailed Block Diagram

Minimum System Requirement

- n Pentium processor; 166 MHz minimum
- n USB port on PC or hub
- n Win95 (with OSR 2.1) or Win98 operating system
- n Video source (NTSC or PAL, composite)
- n Hard disk space for capture (about 45MB/minute at best quality level.)

Reference Design Kit Contents

- n Board in a plastic case and USB cable
- n DC adapter (optional)
- n Electrical schematics (Orcad and Postscript)
- n Technical reference manual
- n Installation guide
- n Software drivers (Win95 and Win98)
- n JPEG software codec

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