

#### PRODUCT BRIEF

# **USB AUDIO/VIDEO I/O REFERENCE DESIGN**

### **FEATURES**

- USB peripheral for real time capture and playback of audio and full motion video
- TV Tuner for viewing TV on PC
- Inputs and outputs standard NTSC/PAL composite or S-Video signals
- Captures compressed video to the PC at 30 frames per second CIF resolution
- Capture resolutions supported are: NTSC/PAL, Full (704 X 482/576), CIF (352 X 240/288) and QCIF (176 X 120/144)
- Highest quality video I/O is enabled by Zoran's MJPEG technology with patented bit-rate-control

- JPEG software decoder included for real-time display while capturing
- JPEG software encoder included for real-time playback at 30 frames per second
- WDM device drivers as required for Windows 98 and Windows 2000
- Complete reference design kit contains evaluation board, documentation, schematics, bill of materials and software in object code
- Royalty free license provided for software driver distribution
- Software source code available

#### **APPLICATIONS**

- TV on PC
- Video for WEB
- Snap Still Images

- Video Editing with Playback to VCR
- Video Presentations
- Photo Album

- Video e-mail
- Desktop Video Conferencing
- Security

# **DESCRIPTION**

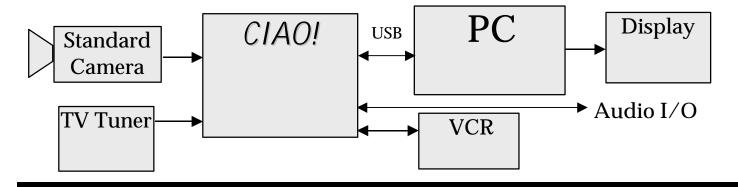
The CIAO! is a very low cost external USB box that enables the highest quality audio and video capture, display and playback for the PC. A TV signal, or signal from a VCR, camcorder or desktop video camera can be captured directly by CIAO! (See fig.1.) CIAO! captures at 30 frames per second without dropping frames using Zoran's MJPEG technology with patented bit-rate-control made famous by professional and consumer desktop video editing implementations.

## **Functional Description**

The main components of the CIAO! are depicted in the block diagram below (See fig.2.) The ZR36420 COACH processor

provides the Zoran MJPEG compression technology with bitrate-control and a glueless interface to the USB. The CIAO! supports capture of audio and video from TV, composite or S-Video sources. The COACH processor contains a video encoder that enables CIAO! to output composite or storage on VCR. The COACH synchronizes audio and video for perfect lip sync on CIAO!. CIAO! can also capture full resolution still images for attaching to e-mail and for photo album applications. Still images can be captured directly to an HTML file for WEB viewing. The COACH processor provides a glueless interface to the Video Decoder, TV Tuner and Audio Codec.

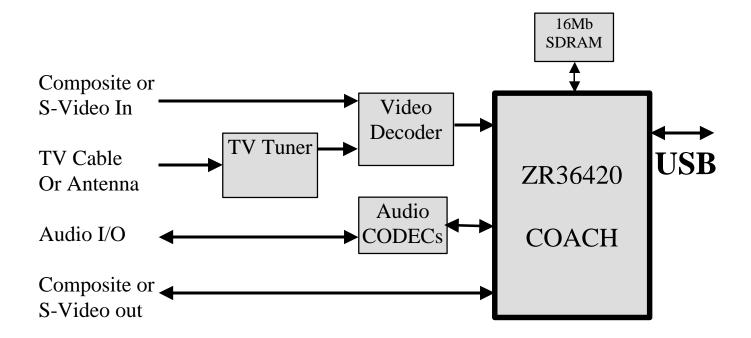
Figure 1. USB Capture/Playback of Audio/Video



March 2000 ZR7364001PB-2.0



Figure 2. The Main Components of CIAO!



## REFERENCE DESIGN KIT CONTENTS

- Board in a plastic case and USB cable
- Electrical Schematics (Orcad and Postscript)
- Technical reference manual

- Installation Guide
- Software drivers WDM for Win '98 & 2000
- JPEG software Codec

### For More Information:

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