

eZ2921 ABSTRACT

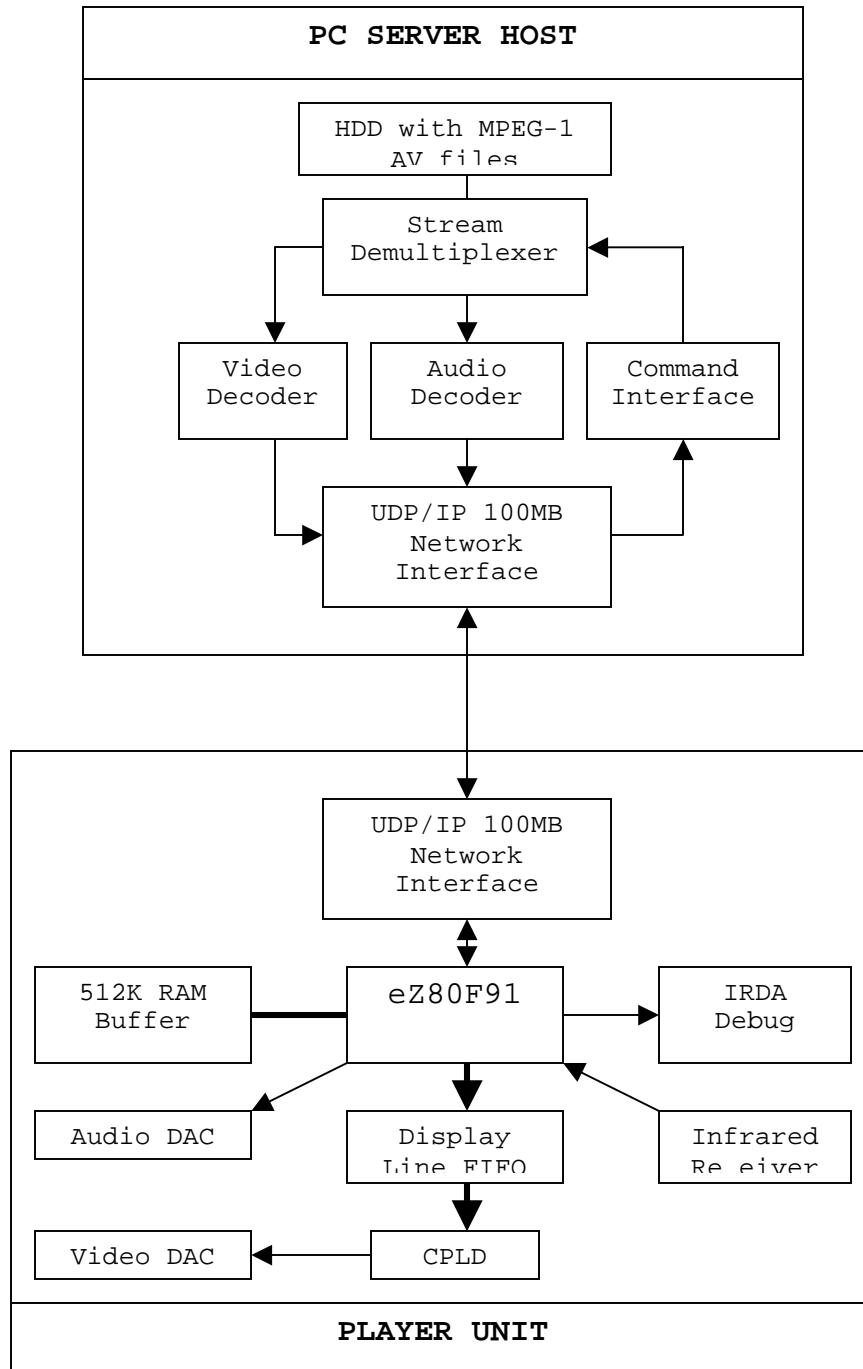
Audio/Video Network Player

This project utilises the eZ80F91 as the CPU inside a low-cost MPEG audio/video (AV) playback unit. The unit can connect to a standard television using composite video and stereo audio signals. The user can control the playback via a standard remote control, which is received by an IR receiver module connected to the eZ80F91.

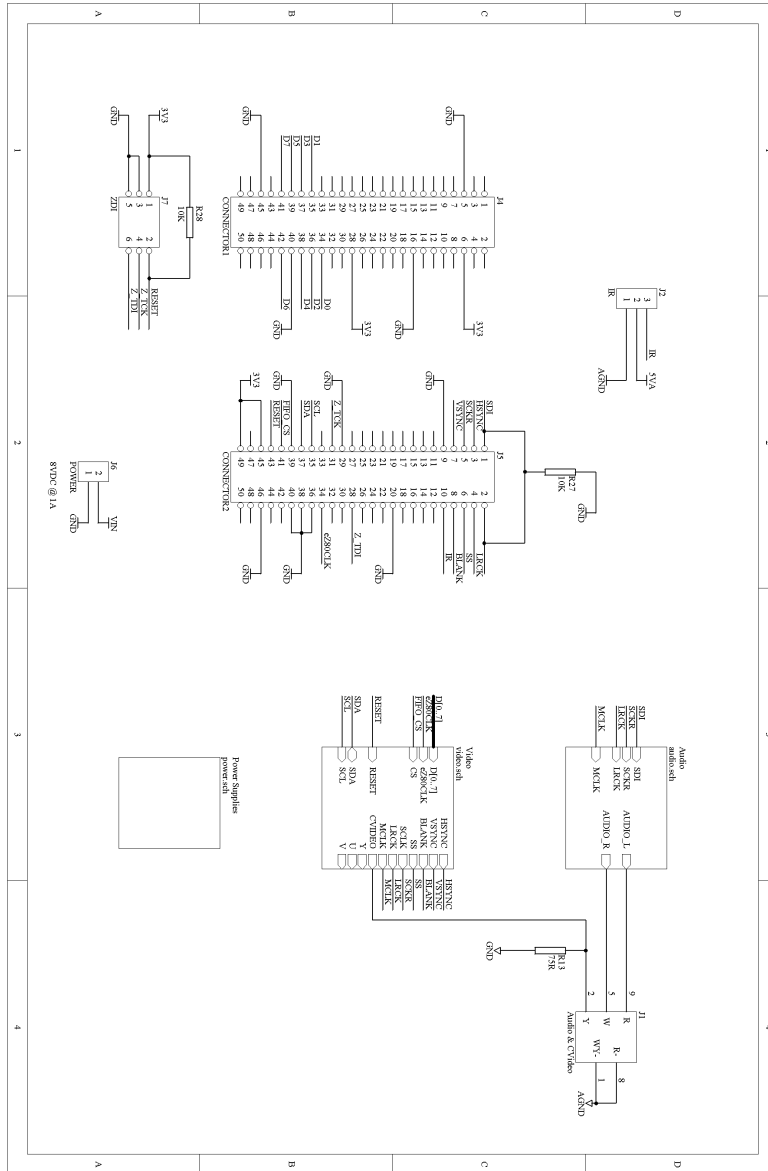
This playback unit design differs from conventional units in that it does not employ an expensive MPEG decoder ASIC. Instead, it relies on a software-based decoder, which runs remotely on a server PC. This server is connected to the playback unit using a 100MB/s UDP/IP LAN connection, and streams the uncompressed audio and video frames in real-time to the playback unit, where they are directly converted back into video/audio signals.

This approach leverages the ample processing power & hard drive storage space available in most desktop PCs. It also increases the flexibility of the system, by allowing many different digital AV formats without having to change the hardware.

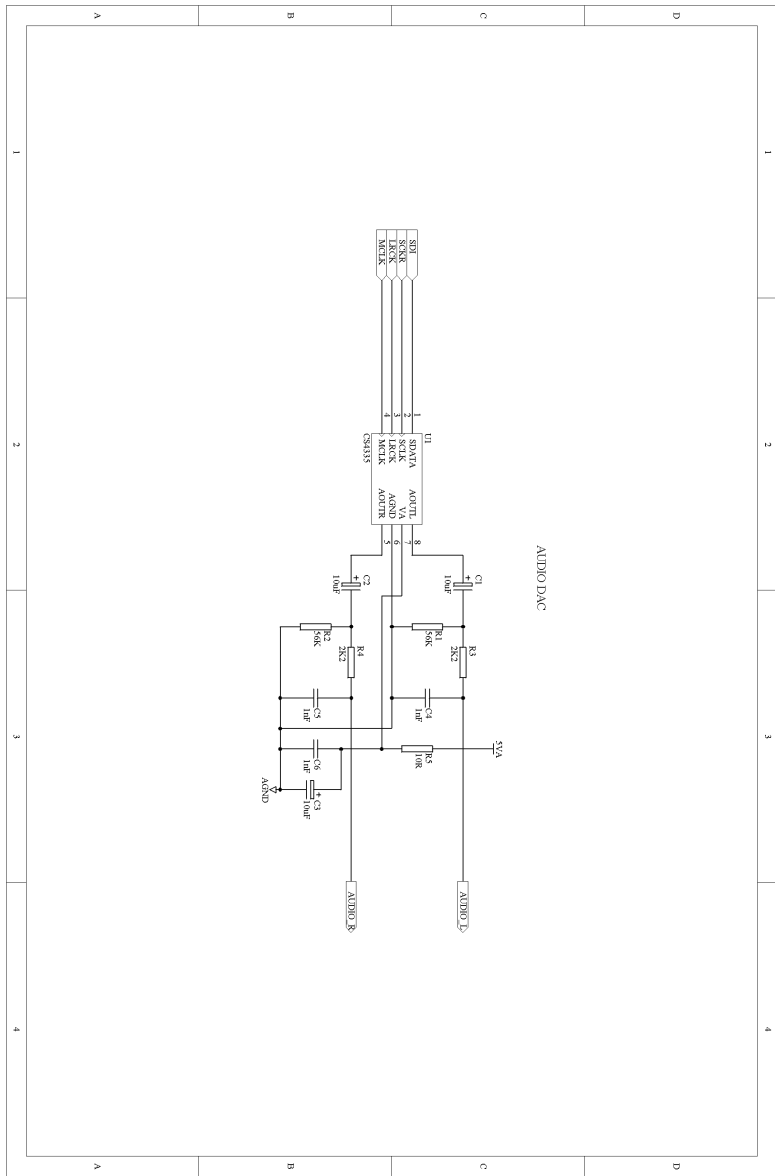
SYSTEM BLOCK DIAGRAM



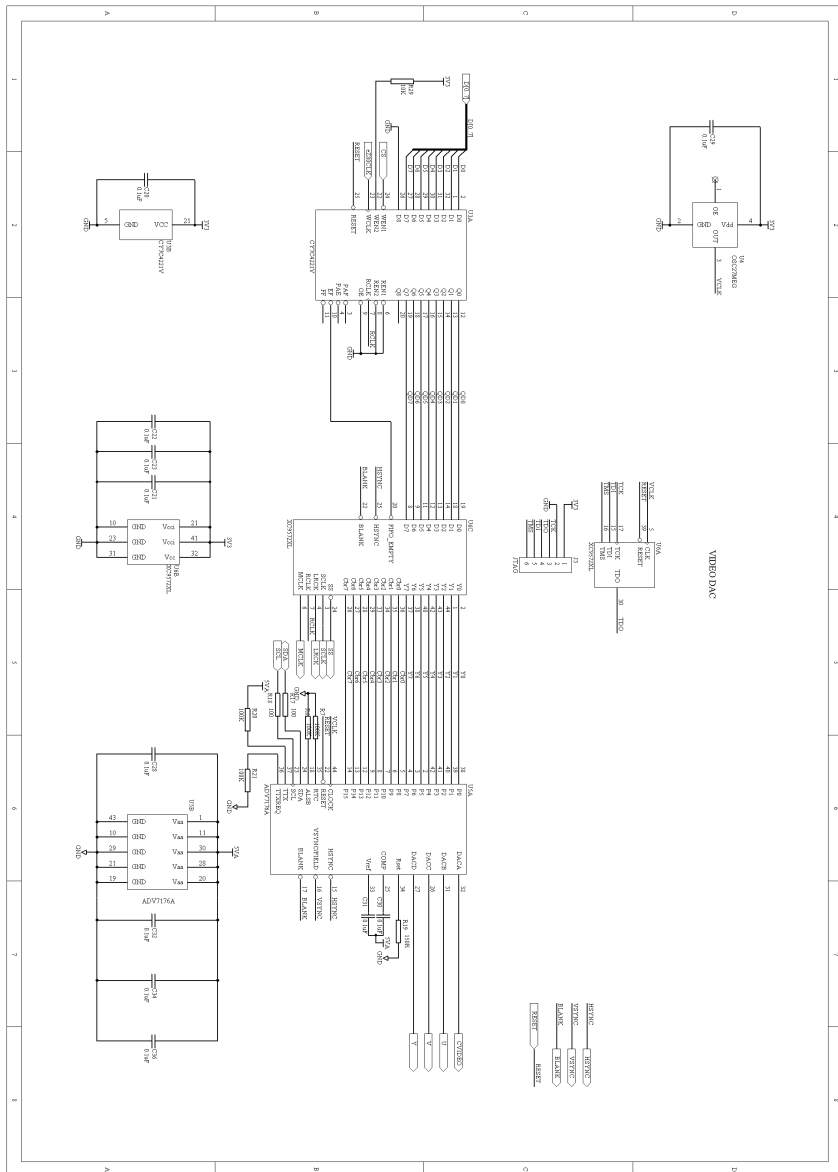
SCHEMATICS



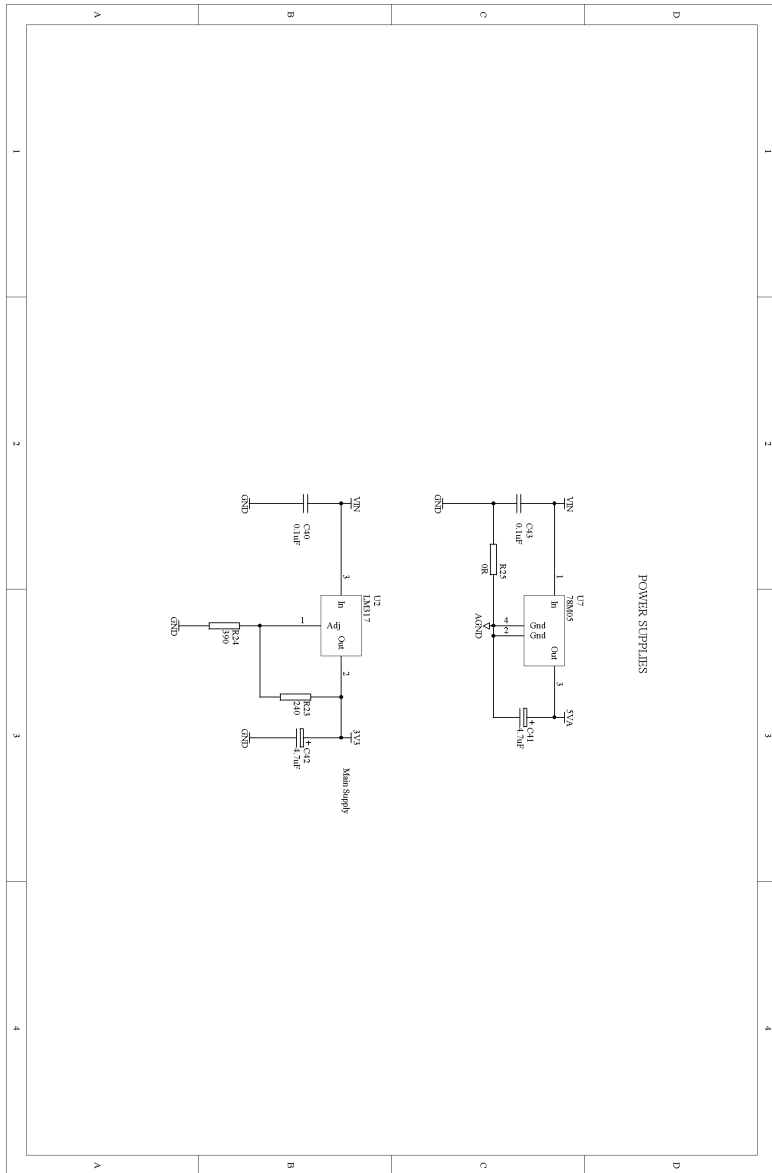
Top Level Schematic



Audio Generation Circuitry



Video Generation Circuitry



Linear Power Supplies

PROJECT PICTURE

