Video Test Generator
Project Overview

ELE 480/481

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Project Goals

Use the media card project as a base and develop a video test signal generator

- Review media card design and extend it to create a video test signal generator
- Design circuitry schematic and PWB layout
- Develop firmware for BlackFin and Genesis chips
- Develop external PC software to control hardware
- Test hardware and demonstrate generation of test signals
Block Diagram

- BlackFin Processor
- Genesis Video Controller Chip
- TTL Video Outputs
- DVI Video Outputs
- VGA Video Outputs
- SDI Video Outputs
- YprPb Video Outputs
- Ethernet
- PC or Laptop
- Video Inputs
- VGA or DVI
- Ethernet
Project Status

This project is an extension of the media card project and a project we developed for Bally.

- Define all video outputs and control features.
- Develop schematic and PWB layout.
- Develop firmware and PC control software.
- We will design an enclosure (unless someone wants to do SolidWorks modeling).
Functional Positions

- System Architect – Understand Djehuty™ system and compression issues; define design requirements and test parameters; assist other functions as needed
- Circuit Designer – Utilize DipTrace to perform schematic capture; define Bill of Materials
- Layout – Utilize DipTrace to layout a printed wiring board to implement design
- Software/Network Engineer – Design and develop external control and transmission system