



AL250 Product Knowledge

What Is the AL250 ?

- 64 pin single chip scan doubler / de-interlacer
- Highly integrated design with built-in DAC, SRAM, and LUT (look-up-table)
- Built-in on-screen-display with programmable bitmap
- Advanced motion adaptive digital line interpolation

What Does The AL250 Do ?

- Converts interlaced YUV/RGB (NTSC / PAL) into non-interlaced RGB format for output for CRT or LCD monitors
- Corrects color accuracy on different types of CRT
- Removes jagged edge artifacts from motion pictures
- Adds special effects

What Are the Features ?

- Highly integrated design with built-in DAC, SRAM, and LUT (look-up-table)
- Built-in on-screen-display with programmable bitmap
- Advanced motion adaptive digital line interpolation scan doubling with no tearing artifacts
- I²C programmability

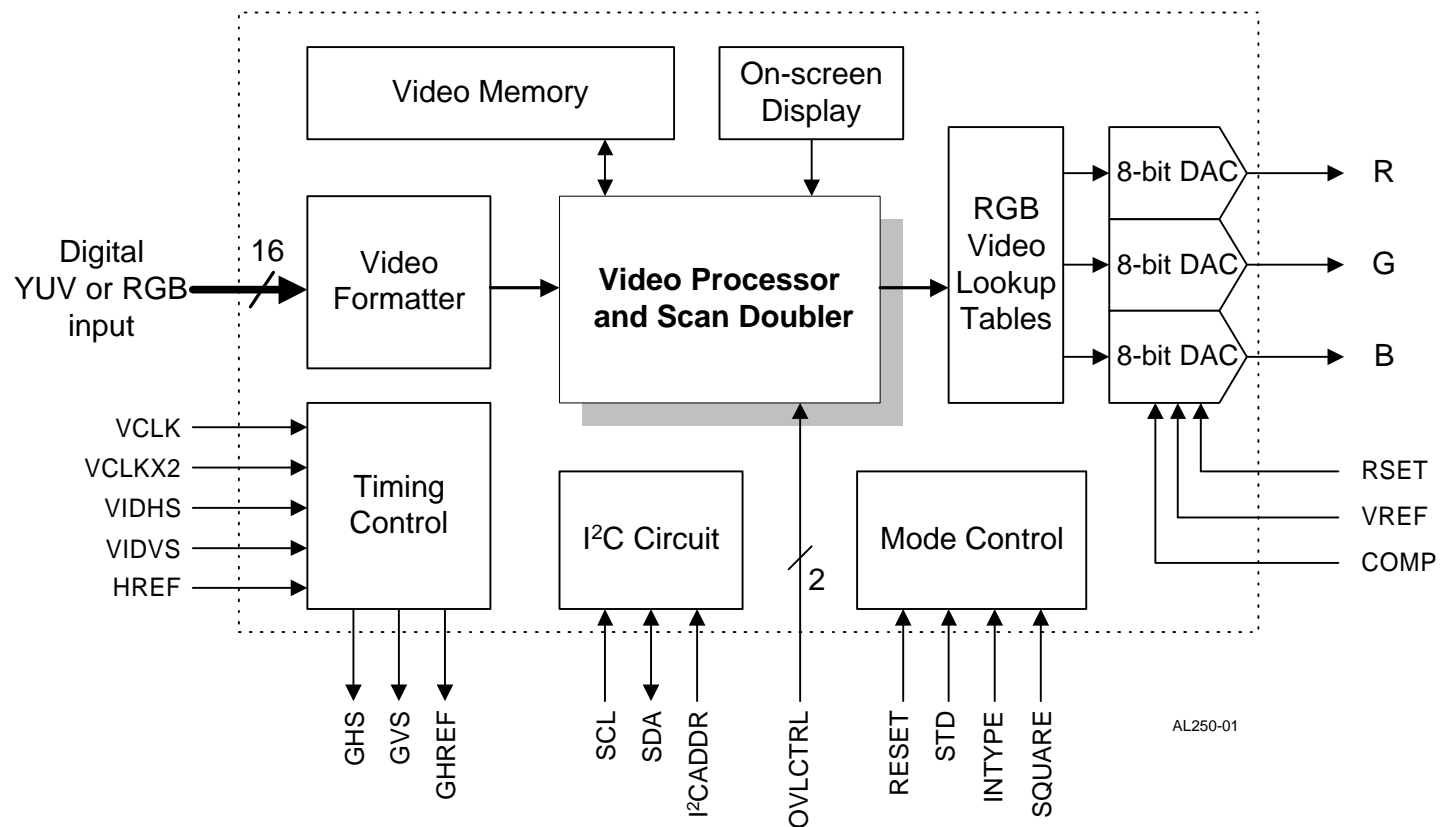
More Detailed Features

- Overlay support for title making and on-screen menu
- Plug & Play (self-initialization)
- Auto NTSC/PAL detect
- Supports both square pixel and ITU-R BT 601 (CCIR601) digital input
- Supports both YUV422 and RGB565
- No external memory required

What Are The Benefits ?

- Supports multiple formats
- No external memory required
- Fully featured
- Low cost

AL250 Block Diagram



What Are The Applications ?

- TV-ready multimedia computer monitor
- Progressive scan TV
- TV to PC video scan converter box
- Video game station
- DVD player
- LCD TV monitor
- Portable DVD / VCD player

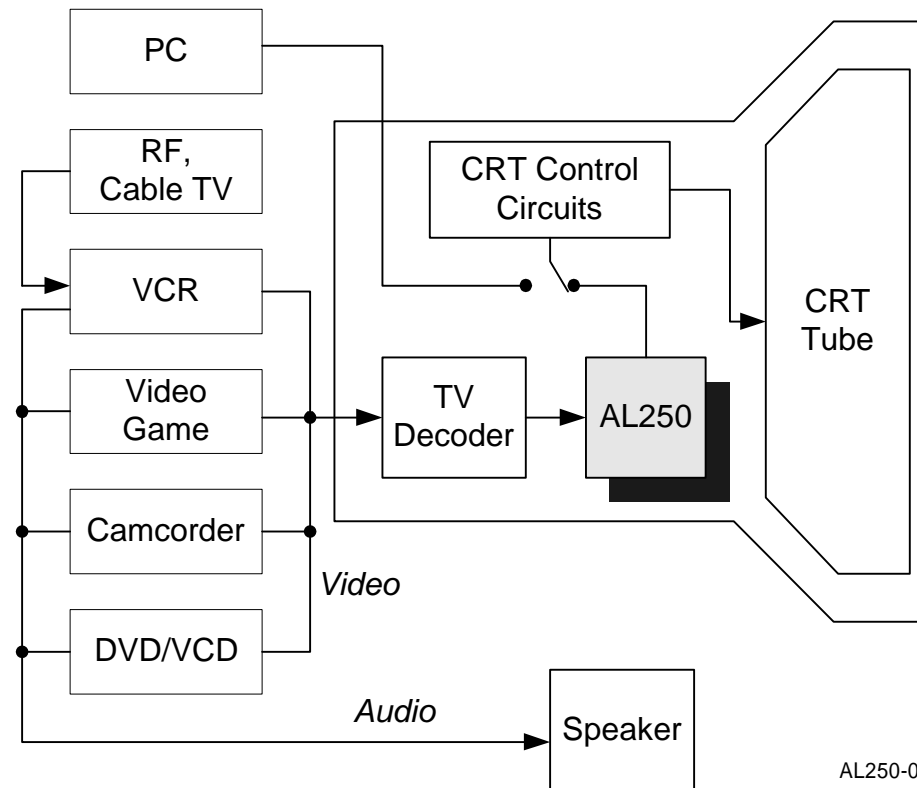
TV Ready PC Monitor

Basic Model

- To allow a regular PC monitor to display television or video input you just need to add a de-coder and the AL250
- The sound channel (speakers) remain separate

TV Ready PC Monitor

Basic Model



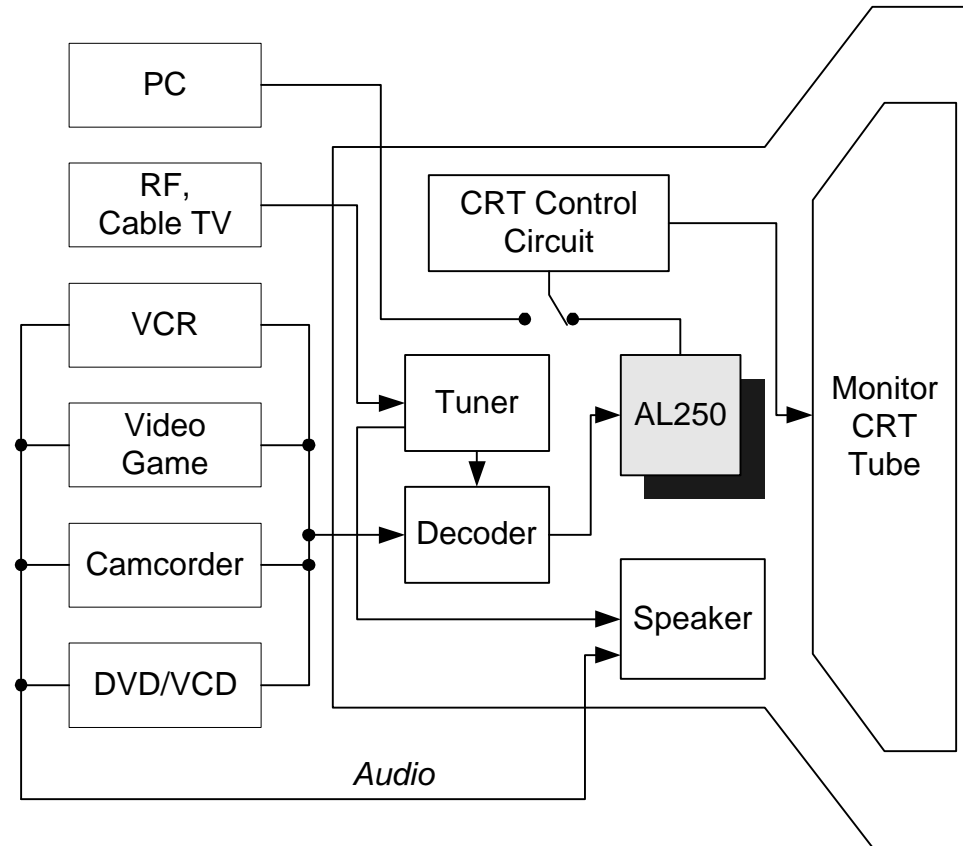
TV Ready PC Monitor

Advanced Model

- To allow a regular PC monitor to become a fully featured television it is necessary to add a tuner, de-coder, an AL250 and internal sound system / speakers

TV Ready PC Monitor

Advanced Model

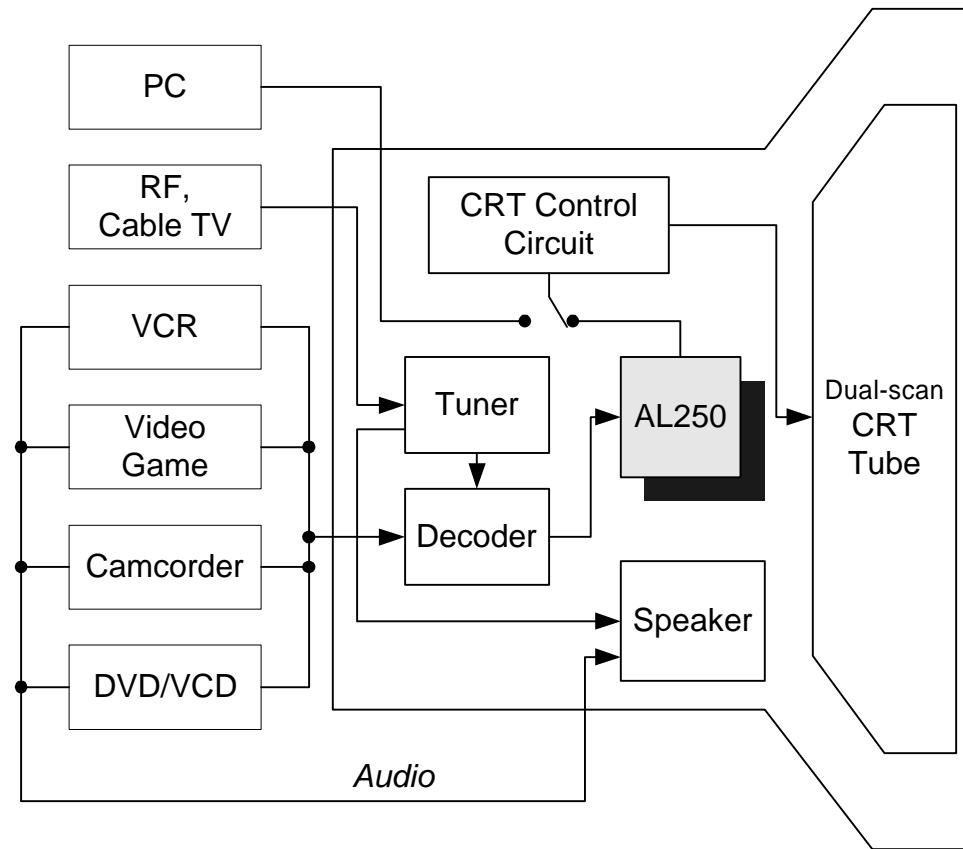


AL250-08

Progressive Scan Television

- The AL250 single chip scan doubler is located between the televisions de-coder and CRT control circuit in a progressive scan television

Progressive Scan Television

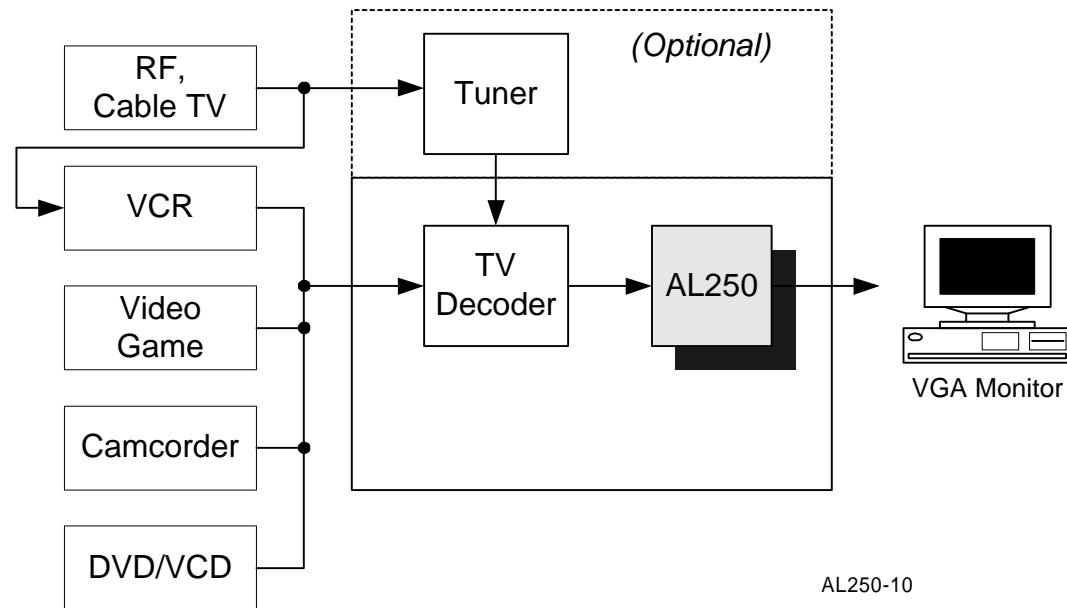


AL250-09

Stand Alone Converter Box

- For stand alone converter boxes a de-coder is used with the AL250 while power is supplied from a separate power adapter
- An optional tuner provides the capability for a stand alone box to become a complete screen-less television which can work with any standard PC monitor

Stand Alone Converter Box



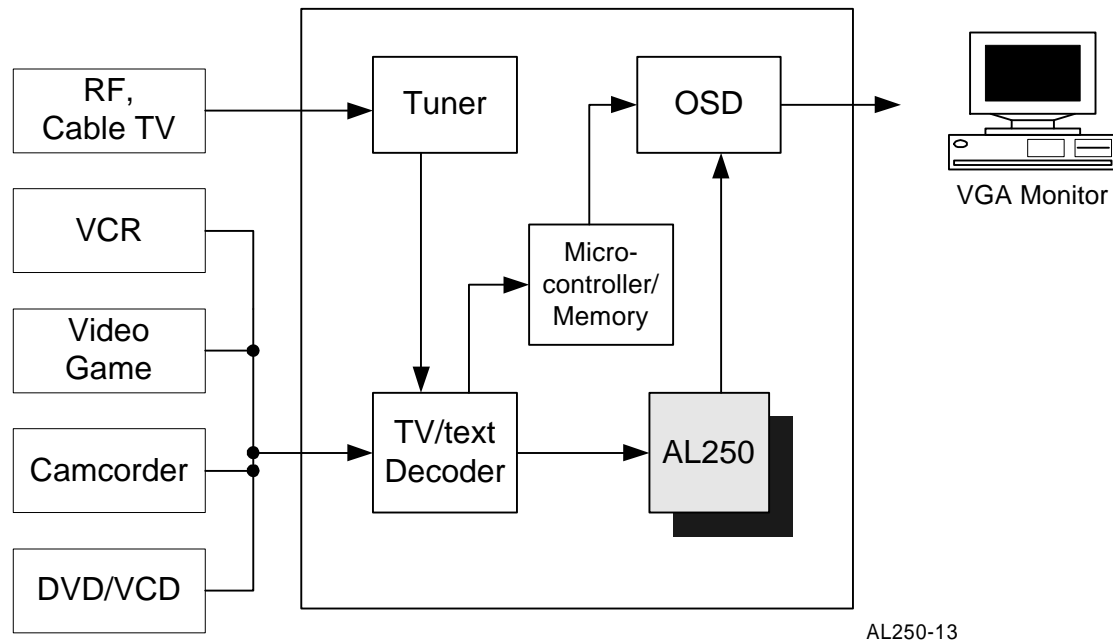
Stand Alone Converter Box

With Closed Caption and Teletext

- In addition to the tuner option, a closed caption presenter is possible by adding a micro-controller and OSD (on-screen display) chip to an AL250 based stand alone box

Stand Alone Converter Box

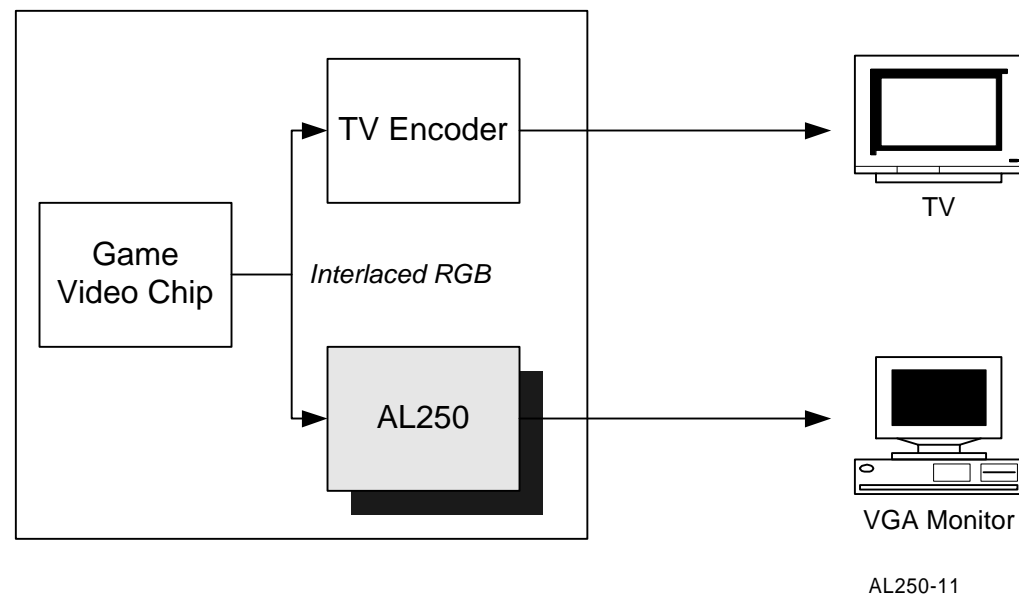
With Closed Caption/Teletext



Video Game Station

- By incorporating an AverLogic AL250 into a regular game station, the market appeal of that product is dramatically increased by allowing a user more options of where and when to play
- Although the television is the primary choice for play, all monitors become plug and play

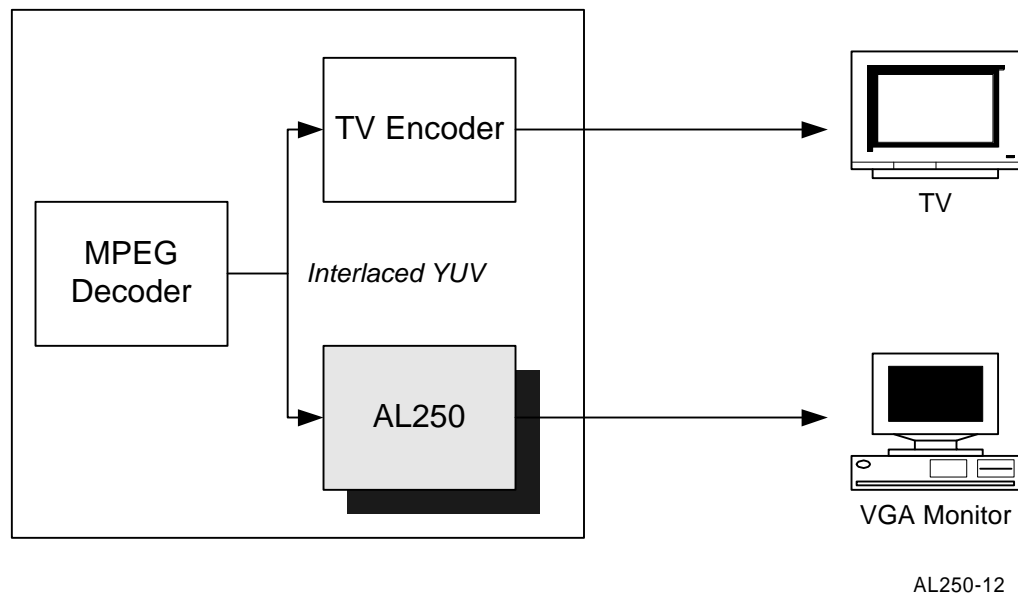
Video Game Station



DVD and VCD Player

- By incorporating an AverLogic AL250 into a regular DVD or VCD player, the market appeal of that product is dramatically increased by allowing a user more options of how to view their discs
- Although the television is the primary choice for viewing, monitors increase flexibility

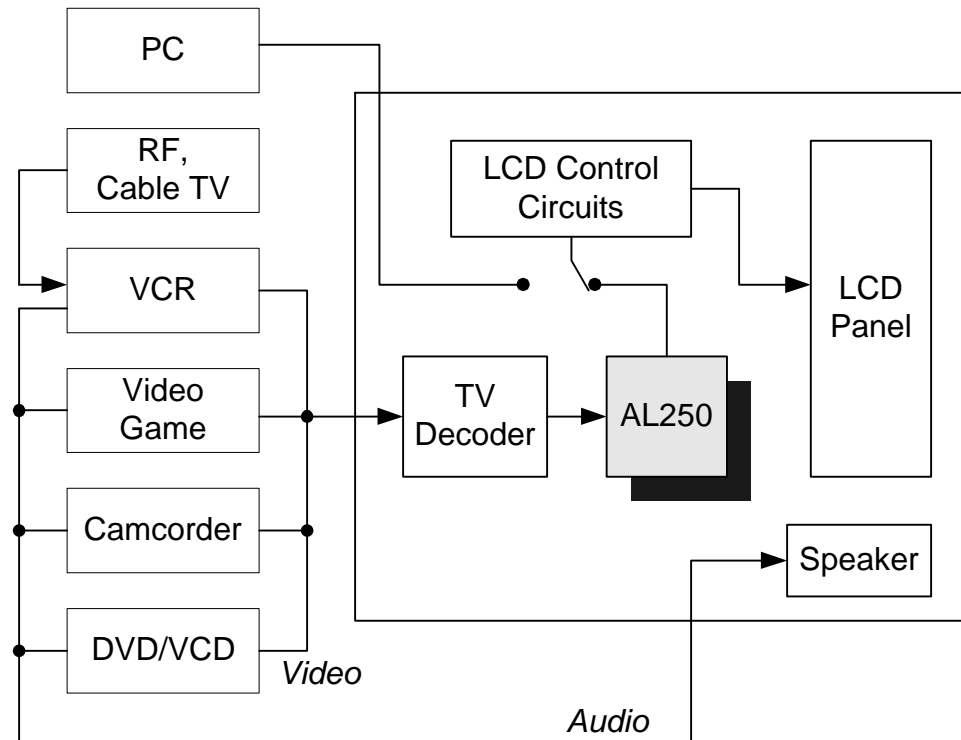
DVD and VCD Players



LCD TV Monitor

- To allow a regular LCD to display television or video input a de-coder and an AL250 needs to be added
- The sound channel (speakers) may remain external or be built in to provide a more integrated solution

LCD TV Monitor

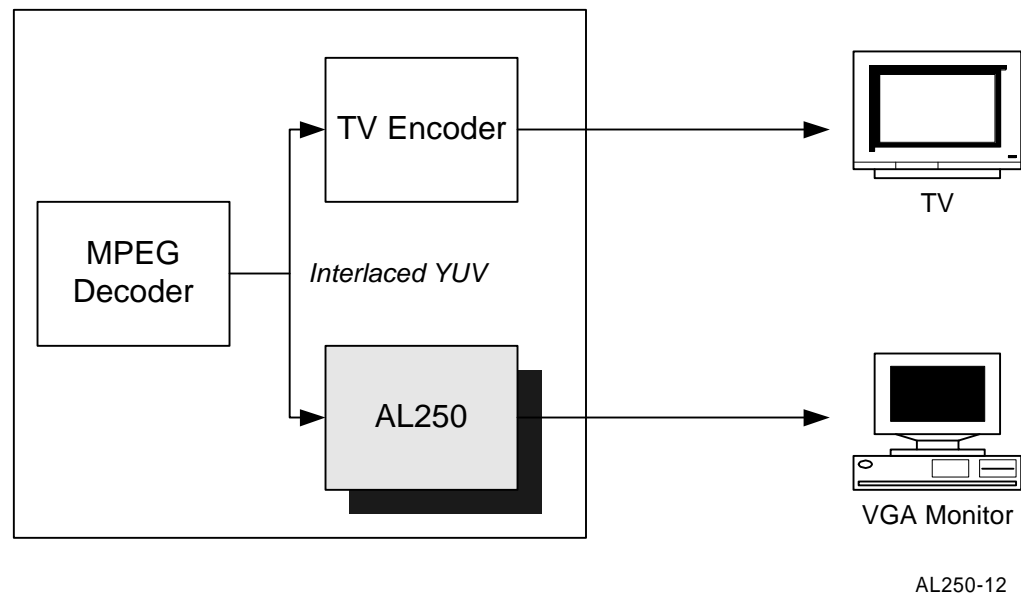


AL250-14

Portable DVD and VCD Player

- By incorporating an AverLogic AL250 into a portable DVD or VCD player, the market appeal of that product is dramatically increased by allowing a user more options of where and when to view their discs
- Although the television is the primary choice for viewing, monitors increase flexibility

Portable DVD and VCD Players



Promotional Tools

- An evaluation kit is available. The kit includes :
 - AL250 evaluation board
 - Data sheets
 - Application notes
 - Power adapter
 - S-video and composite cables

Sample Chips and Support

- Sample AL250 chips are available upon request
- AverLogic are pleased to assist all customers with layout and implementation of the AL250
- Support is also offered for evaluating and/or de-bugging of prototype boards using the AL250 scan doubler

For Further Information

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