

MPEG-4/2/1 A/V USB 2.0 Grabber Reference Design

AL9V576B-EVB-A10


Features

- High quality and real-time hardware MPEG-4/2/1 encoding
- S-Video and composite video inputs
- High speed USB 2.0 interface
- Stereo right and left audio inputs
- Record analog video into various playback file formats using a built-in hardware MPEG-4/2/1 encoder chip
- Time-shifting functions for pause, rewind, and fast forward
- Support preview, record, and playback functions
- Support NTSC/PAL TV tuner input
- iPod and PSP file formats supported

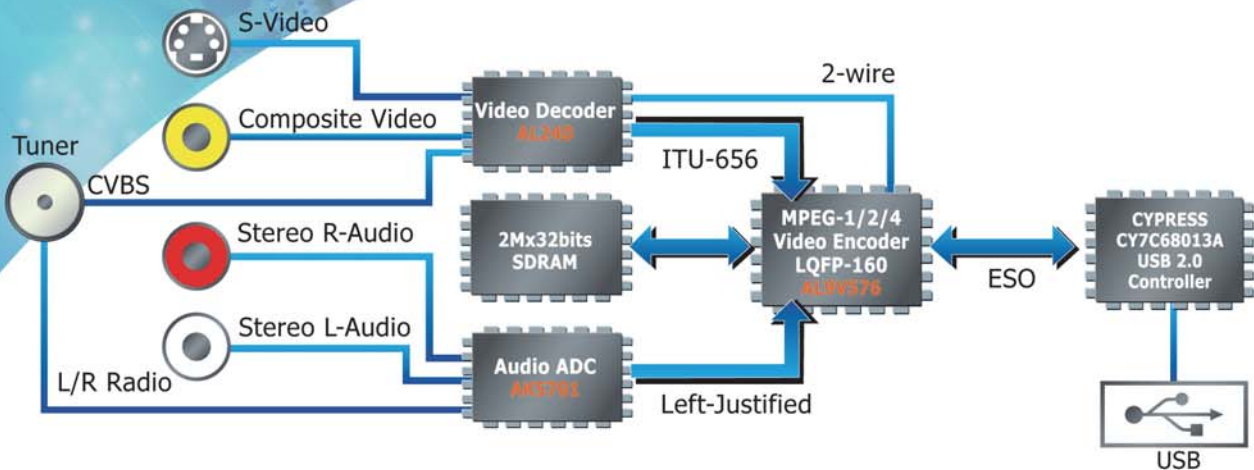
Introduction

The MPEG-4/2/1 A/V USB 2.0 Grabber reference design is powered by AverLogic's latest AL9V576 MPEG-4/2/1 A/V Encoder. The reference design offers an affordable way for evaluating and exploring the quality and performance of AverLogic's MPEG A/V encoding solutions. It provides a plug-and-play high speed USB 2.0 interface to facilitate the evaluation, development and testing of MPEG A/V capture systems.

Specifications

Video System	Video Standard Video Input Capture Resolution Frame Rate Bit Rate Image Processing Video Encoding File Format GOP Structure	NTSC or PAL 3(Analog TV tuner, CVBS, S-Video) D1/VGA/QVGA/CIF/QCIF 30/25 fps at NTSC/PAL 750Kbps to 8Mbps with VBR and CBR Software adjustment of hue, contrast, saturation, and brightness MPEG-2/1 and MPEG-4 Advance Simple Profile PS, TS, DVD, VCD, ES, PES, AVI, PSP, iPod I, IP, IBP, and IBBP
Audio System	Audio Input Audio encode format Bit Rate	1 stereo input MPEG-1 Layer II at 48KHz sample rate 64Kbps to 384Kbps
Software Develop Kit	Operation System DirectX Required Demo Program AP function	Support Microsoft Windows® XP and Win2K Version 9 or above Complete demo program with C++ sample code for reference Preview, Time shifting, Record, Playback
PC Connectivity	Host interface	USB 2.0
Environment	Temperature	Operating -0~60(°C) Non-operating -20~-70(°C)
Power Supply	AC/DC Adapter	Input: 100~240V, AC Output: 5V/3A, DC

Block Diagram



Application Scenario

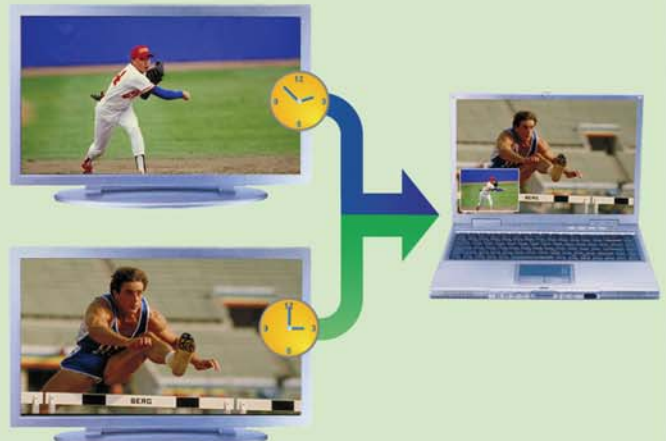
Scenario 1

Record TV or family video to PC and backup into DVD



Scenario 2

Using time-shifting function to playback missing TV program



Ordering Information

Part Number	AL9V576B-EVB-A10	AL9V576B-SDK-A10
Description	AL9V576 EVB Kit Package Contents Hardware <ul style="list-style-type: none"> • USB 2.0 Audio/Video Capture Device • USB Cable • Power Adapter Document <ul style="list-style-type: none"> • EVB User's Manual Software <ul style="list-style-type: none"> • AverLogic Player Application Program 	AL9V576 SDK Kit Package Contents Hardware <ul style="list-style-type: none"> • USB 2.0 Audio/Video Capture Device • USB Cable • Power Adapter • AL9V576 EVB H/W Reference Design (includes schematics, Gerber & layout files) Software <ul style="list-style-type: none"> • AL9V576 EVB S/W Reference Design (includes Firmware and Windows Drivers) • AverLogic Player Application Program • Newsoft MPEG Decoder SDK(optional) Document <ul style="list-style-type: none"> • EVB User's Manual • AL9V576 Datasheets • AL240 Datasheets • AL9V576 EVB H/W Application Notes • AL9V576 EVB S/W Application Notes