

Cougar TL851 Upgrade Card

COUGAR TL851 UPGRADE CARD

TeraLogic's TL851 Upgrade card for the Cougar DTV Development Platform replaces the current TL850 card. It provides additional features that enable customers to reduce system cost by using the TL851's integrated design. With the upgrade card, Cougar, which is the de facto industry standard platform for development of audio/video and digital data broadcast receivers, becomes even more powerful. The card allows OEMs and application developers to rapidly deploy new products and services based on TeraLogic's latest technology. The software upgrade package allows easy integration of the new functions to the overall system while maintaining software compatibility to the rest of the Cougar system. The upgrade card has the same form factor as the TL850 card.

This upgrade card provides a reference design to customers on using the TL851 IC which can decode MPEG video up to MP@HL along with up to 32bpp graphics, scaling, MPEG transport demultiplexing and includes the NTSC/PAL encoder. The integrated NTSC/PAL encoder in the TL851 IC reduces the system cost significantly and provides simultaneous auxiliary output (NTSC/PAL) along with primary output (HD). The programmable de-interlacer block inside the TL851 IC comes with a default algorithm provided by TeraLogic through the software package for de-interlacing purposes. The software provides the means for customers to change the algorithm to suit their needs. For customers designing systems for the Japanese BS4 market,

this upgrade card provides an option to decode AAC audio data using external audio decoder DSP from Cirrus Logic, Inc. The design of the upgrade card is a reference for customers on how to connect the TL851 IC from TeraLogic to the CS49310 IC from Cirrus Logic. This configuration is used to decode AAC audio data within the Cougar system.

The software upgrade includes drivers which control the TL851 IC within the Cougar system and can be used by customers in their own product design.



Cougar TL851 Upgrade Card

FEATURES:

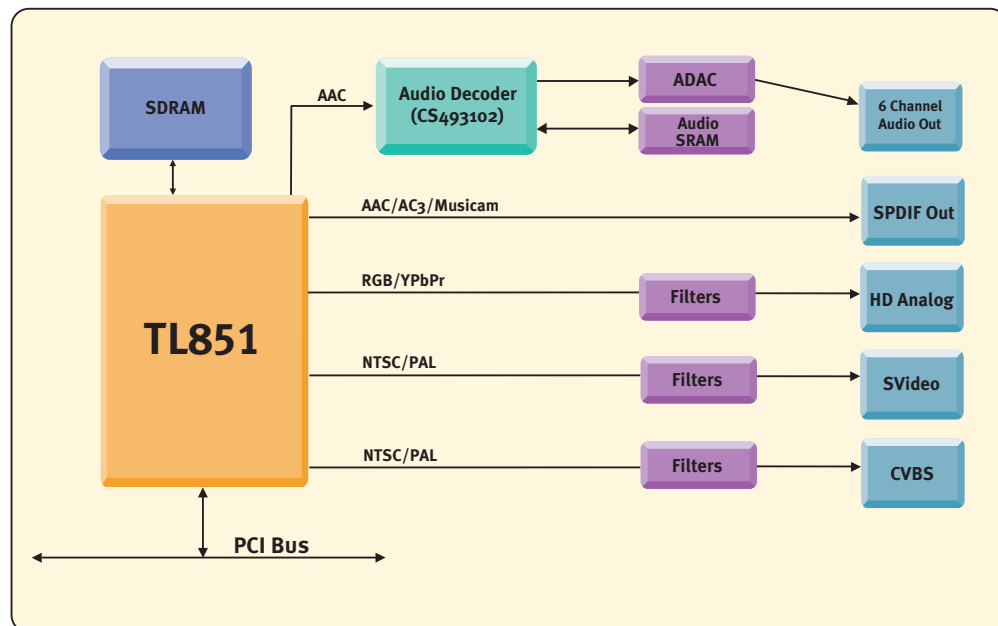
- Single PCI card which fits in the same slot as the TL850 card in the Cougar system
- Highly integrated TL851 IC which can decode MPEG video up to MP@HL along with up to 32bpp graphics, scaling, MPEG transport demultiplexing and includes the NTSC/PAL encoder
- Simultaneous primary video output (HD) and auxiliary output (SD) through different connectors
- NTSC/PAL output supports macrovision version 7.1
- Simultaneous CVBS and S-Video signals
- Programmable de-interlacer logic inside the TL851 IC with default algorithm from TeraLogic
- De-interlacer algorithm is customizable by each customer
- On board DSP for AAC audio decoding for BS4 market
- Decoded AAC audio mixed with PCM data from PCM before sending out
- Different types of post processing on decoded audio enabled
- Simultaneous 5.1 channel decompressed audio output on separate connectors & compressed audio on SPDIF connector

APPLICATIONS:

- Digital Set-top boxes
- Digital TVs
- Personal Video Recorders
- Satellite receivers which require post-processing after audio decoding

CONNECTOR SPECIFICATIONS:

- Primary video output (up to HD) – DB15
- Auxiliary video output (NTSC/PAL) – S-Video
- SPDIF output for compressed audio – RCA connector
- Composite video output (NTSC/PAL) – RCA connector
- Decompressed 5.1 channel output
- MPEG transport input from TL81x board – 2x13 pin header
- CCIR656 video input from Cougar main board – 2x13 pin header



TL851 BLOCK DIAGRAM



TeraLogic

TeraLogic, Inc. 1240 Villa Street Mountain View CA 94041
tel 650.526.2000 fax 650.526.2006 www.teralogic.tv