STB7109
High definition AVC, VC-1 and MPEG-2 decoder with advanced security and connectivity

DESCRIPTION

The STB7109 represents a new generation of high definition STB/DVD decoder devices from STMicroelectronics, providing exceptional performance for low-cost HD applications. AVC and VC-1 video decoders, advanced security features in the form of the Secure Video Processor and Windows Media DRM and new connectivity features enable the STB7109 to be a core part of any home networking device.

An embedded Ethernet port allows the STB7109 to be used in IP set-top boxes, while the generic transport interface can be easily connected to ST’s range of silicon demodulators. A SATA interface is provided for HDD applications.

Figure 1. H.264/AVC low-bit rate set-top box decoder
STB7109

FEATURES

- 300 MHz SH4-202 CPU core
- Linux and WindowsCE capable
- Transport stream merger/router
- Programmable transport stream interface (PTI)
- Advanced video decoder
  - H264/AVC HP@L4 and MPEG2 MP@HL
  - Microsoft VC1
- Graphics engine/blitter
- Advanced security
  - Secure Video Processor (SVP)
  - Windows Media DRM.
- Dual display composition
  - High definition and standard definition
- Main and auxiliary output video DACs
- DVI, HDMI output
- Digital video & audio inputs
- Programmable audio decoder
  - MPEG1 I/II, MP3, Dolby® digital, AAC LC, high efficiency AAC
- USB 2.0 host controller
- DVR capable with a serial ATA HDD interface.

PART NUMBERING

Table 1. Order codes

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
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<tbody>
<tr>
<td>STB7109</td>
<td>HD AVC/VC1 decoder</td>
</tr>
<tr>
<td>STB7109-Mboard</td>
<td>Evaluation platform</td>
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REVISION HISTORY

Table 2. Revision history

<table>
<thead>
<tr>
<th>Date</th>
<th>Revision</th>
<th>Description of changes</th>
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<tbody>
<tr>
<td>September-2005</td>
<td>1</td>
<td>First issue</td>
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