STiH251 HD and SD decoder for DVB-T2 markets

STMicroelectronics

Multi-standard A/V decoder with integrated DVB-T2/T demodulation targets web-connected set-top boxes

The STiH251 supports multi-standard decoding (H.264, MPEG-2 and VC-1) and integrates the demodulation of the latest digital terrestrial standard, DVB-T2, as well as supporting the legacy DVB-T standard.

This HD decoder also offers extensive connectivity, perfect for hybrid terrestrial + IP set-top boxes.

This device is STi7105 code-compatible and so allow for quick development of new set-top box platforms compliant with DVB-T2.

Key features

- Integrated DVB-T2 and DVB-T demodulator:
  - User-selectable mode
  - Compatible with low-to-high IF tuners
  - ADC for RF signal strength
- Advanced high-definition video decoding (H.264/VC-1/MPEG-2)
- Advanced multi-channel audio decoding (MPEG-1/2, MP3, DD/DD+, AAC/AAC+, WMA9/ WMAPro)
- Linux, Windows CE and OS21 compatible applications CPU
- Multistream, DVR-capable transport stream processing
- Extensive connectivity (dual USB hosts, eSATA, Ethernet MAC/MII/ RMII and PCI)
- Advanced security and DRM support including SVP, MS-DRM and DTCP-IP

Key benefits

- Integrated demodulation for optimized platform cost
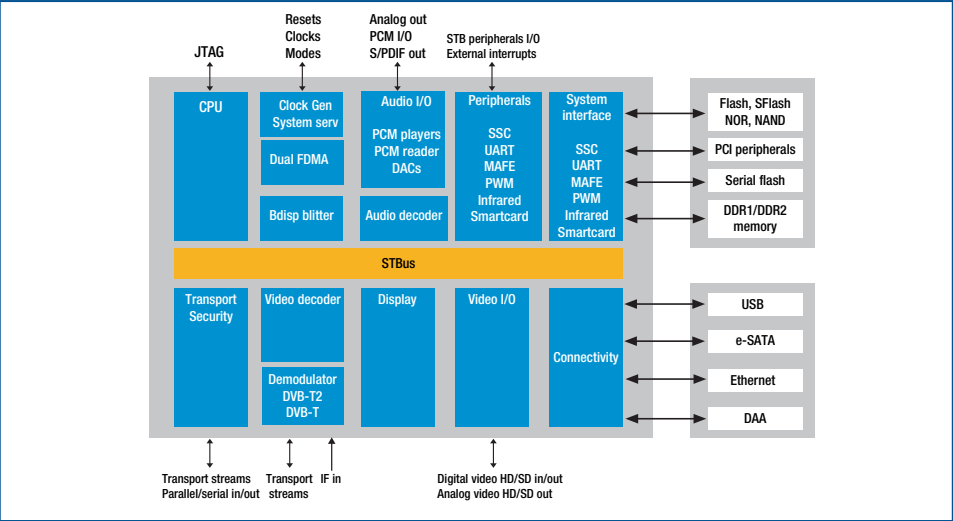- STi7105 code-compatibility for reduced development time

Targeted applications

- Terrestrial operator or free-to-air set-top boxes
- iDTV digital TV systems
- PCTV dongles

Cost-optimized, highly integrated SoC

The STiH251 has been optimized, both in cost and performance, for use with the most advanced CAN and silicon tuners available on the market (including ST's STV4100 silicon tuner), and is compliant with DVB-T2 and DVB-T standards. The STiH251 has an extremely low-power front-end, contributing greatly to the overall energy-efficiency of set-top box platform, and helping manufacturers meet the EnergyStar Tier II and European power consumption regulations.

Block diagram

The STiH251 is delivered with a full suite of low-level drivers and application software, with detailed user manuals and reference design schematics to enable seamless integration in complex digital TV systems such as iDTV, set-top boxes or PCTV dongles.

Application diagram

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