STiH252

Advanced FTA STB processor with integrated DVB-C/DVB-T/DVB-T2 demodulator
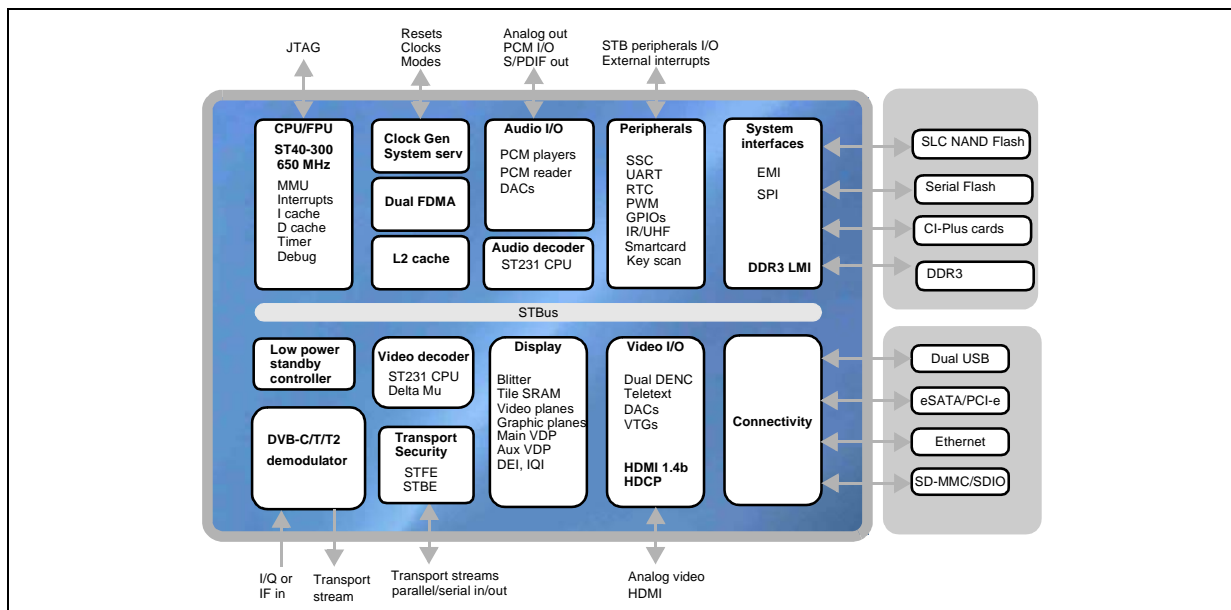
Data brief

Features

- Integrated DVB-C, DVB-T and DVB-T2 demodulator and FEC
- ST40 applications CPU with 256 Kbyte L2 cache
  - 650 MHz delivering 1200 DMIPs
- 16-bit LMI supporting DDR3:
  - Up to 667 MHz (DDR3-1333)
- Latest generation Delta decoder with ST231 core:
  - Decoding of H.264, MPEG2, VC-1 and AVS HD or SD video streams
- 3DTV decoding and display, compatible with HDMI 1.4b
- Extensive connectivity:
  - Two USB 2.0 ports
  - Ethernet MII/RMII/TMII port
  - SD/eMMC card port
  - Gen II (3 Gbit/s) eSATA port
  - PCI-e port
- Secure boot from SLC NAND Flash or Serial NOR Flash
- Low-power process and architecture
- Integrated low power standby controller
- High-quality video resizing and de-interlacing
- Targets two-layer PCBs for cost-effective zapper and STB applications
- Integrated 10/100 Ethernet MAC and PHY
- 2D graphics blitter
- Package: PBGA 27 x 27 mm^2

Description

The STiH252 uses the latest process technology to provide a cost-effective, feature rich, highly integrated SoC for set-top boxes (STBs). It is targeted at the advanced decoding STB market across cable, terrestrial and IP/hybrid networks, and is suitable for retail markets worldwide.

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Overview

The STiH252 offers current users of ST's growing family of advanced decoding ICs enhancements in performance and features, enabling operators to offer consumers new multimedia-rich services and viewing experiences, including new 3DTV features. Faster DDR3 memory is also supported, and the applications CPU benefits from an L2 cache.

An integrated standby controller enables the STiH252 to target stringent low power regulations.

Features	Benefits
Integrated DVB-C, DVB-T and DVB-T2 demodulation and FECs.	Highly-integrated STB solution, reducing component count and manufacturing BOM.
ST40 applications CPU, with 32KI and 32KD L1 caches and 256K L2 cache.	High-performance processing for applications and middleware.
Integrated low power standby controller within its own power island.	Secure hibernation to, and fast resume from, very low power passive standby mode, targeting STB standby power < 0.5 W.
Latest generation of ST's Delta video decoder coupled with a high-quality video display pipeline (HQVDP).	Decoding of advanced high definition standards (MPEG2, H264, VC-1, AVS) plus the performance and flexibility for web-based content decoding such as Flash®, DivX™, MJPEG and Real®, without impacting applications CPU performance.
Dual USB 2.0 hosts, eSATA, Ethernet MAC with MII/RMII/TMII interfaces, PCI-e, SD-MMC/SDIO interface.	Extensive high-speed connectivity for the widest range of STB peripherals, such as Flash drives, external HDDs, Ethernet, home network controllers (such as MoCA®, Wi-Fi), DOCSIS® modem and memory cards.
Ball compatible with other STiH2xx family variants.	Single platform versatility across all networks (satellite, cable, terrestrial, IP).

Revision history

Table 1. Document revision history

Date	Revision	Changes
13-Jun-2013	1	Initial release.

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