



HD cable/terrestrial STB processor with integrated demodulators and low power standby controller

Data brief

Features

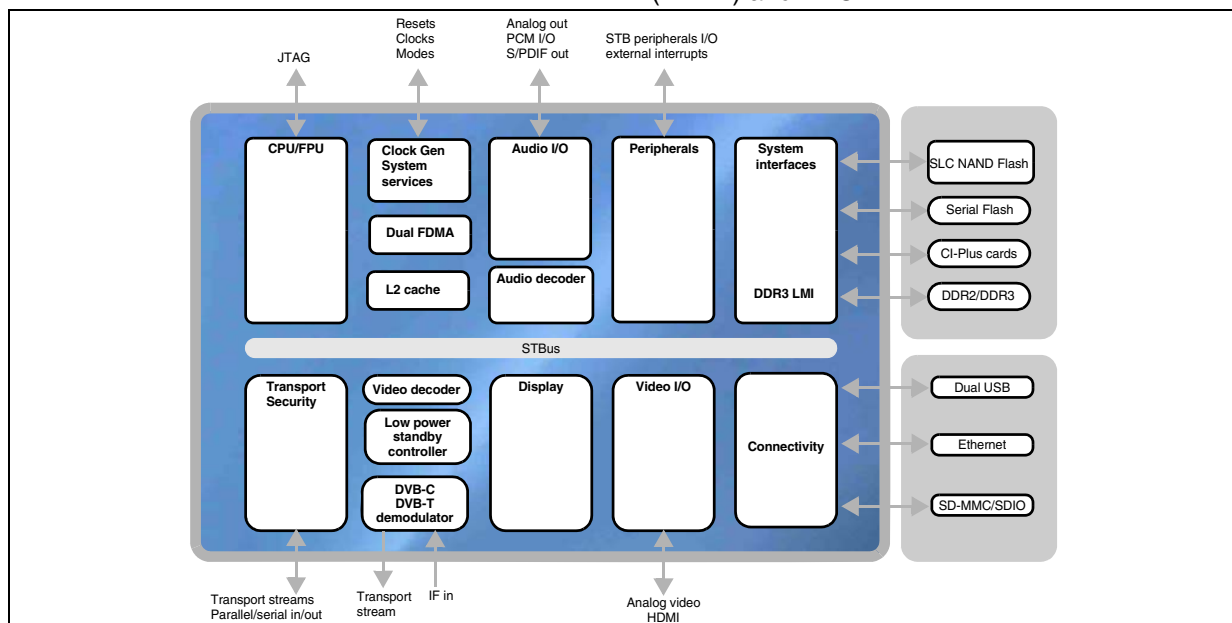
- ST40 applications CPU with 256 KB L2 cache
- 16-bit LMI supporting DDR2/DDR3
- Decoding of H.264, MPEG2, VC-1 and AVS HD video streams
- 3DTV decoding and display compatible with HDMI 1.4b
- Extensive connectivity (2 × USB 2.0 ports; Ethernet MII/RMII/TMII port; SD/MMC card port)
- Low-power process and architecture
- Integrated low power standby controller
- High-quality video resizing and de-interlacing
- Targets two layer PCBs for cost-effective zapper STB applications
- Integrates dual mode DVB-T/DVB-C demodulation and FEC
- Integrated Ethernet PHY

Description

The STiH271EL 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 and terrestrial networks, and is suitable for operator markets and retail markets worldwide.

The STiH271EL provides a solution for operators and manufacturers to specify and quickly deploy a range of cost-effective, high-performance zapper STBs. Fast time to market is enabled by the STiH271EL's pre-defined profile with Dolby™ audio enabled (license required), without Rovi™ and without advanced security features.

The STiH271EL integrates a high-performance dual mode, cable/terrestrial receiver, supporting DVB-C or DVB-T reception, channel demodulation, and forward error correction (FEC). The DVB-C receiver is compliant with ITU-T J.83 Annex A/C, and the DVB-T receiver is compliant with ETSI EN-300744 v1.5.1, Nordig Unified (v2.2.1) and DTG 7.2.



1 Introduction

The STiH271EL 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. The STiH271EL has an integrated standby controller that enables it to target stringent low power regulations.

Features	Benefits
Integrated dual mode DVB-C/DVB-T demodulation/FEC.	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, H.264, 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, Ethernet MAC with MII/RMII/TMII interfaces, 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).

2 Revision history

Table 1. Document revision history

Date	Revision	Changes
01-Nov-2012	1	Initial release.

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