



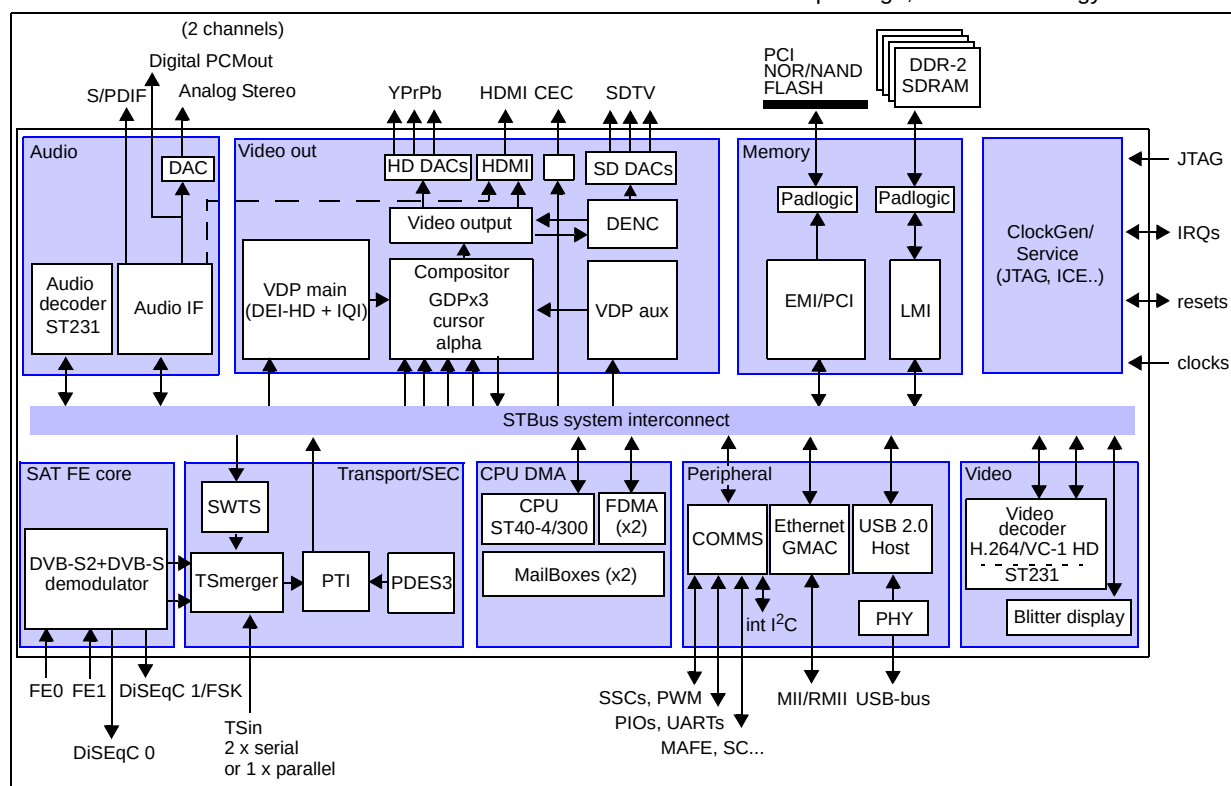
STi7111

Low-cost HDTV satellite set-top box decoder for Microsoft VC-1, H.264 and MPEG-2

Data Brief

Features

- Microsoft VC-1, MPEG-2 and H.264 support
- ST40-300 CPU running at 450 MHz, high performance for Linux, Windows CE and OS21 based systems
- DVB-S2 and DVB-S front-end integrated demodulators with a fully featured HD advanced decoder system-on-chip (SoC)
- Flexible ST231 based advanced video decoder
- ST231 audio decoder at 450 MHz supporting WMA9, AC3, DD+, AAC, AAC+ with SPDIF output
- HD and SD simultaneous display, 2 video, 3 graphics planes and background color with high quality filtering
- HDMI/HDCP output plus HD or standard definition (SD) component and composite output
- Unified DDR2 32-bit interface operating at up to 400MHz
- Programmable transport interface (PTI) and transport stream (TS) merger with up to 2 digital external TS inputs, 2 internal inputs from internal demodulators and one TS from memory for network client
- USB 2.0 to support network interface and feature enhancement
- External memory interface (EMI) with Nand-Flash, Nor-Flash, PCI, peripherals support
- 10/100 Mbit/s Ethernet MAC with media independent interface (MII) and reduced MII (RMII)
- Advanced security, SVP compliant, WM DRM compliant
- Dual smartcard, 4 x UART, 3 x synchronous serial controllers (SSC), soft modem and DAA interface, IR blaster and receiver, UHF Rx digital input
- DiSEqC 2.0 and FSK modem supported
- 4 x 4 matrix key front panel switch scanner FSM with key de-bounce
- 27 x 27mm package, 65nm technology

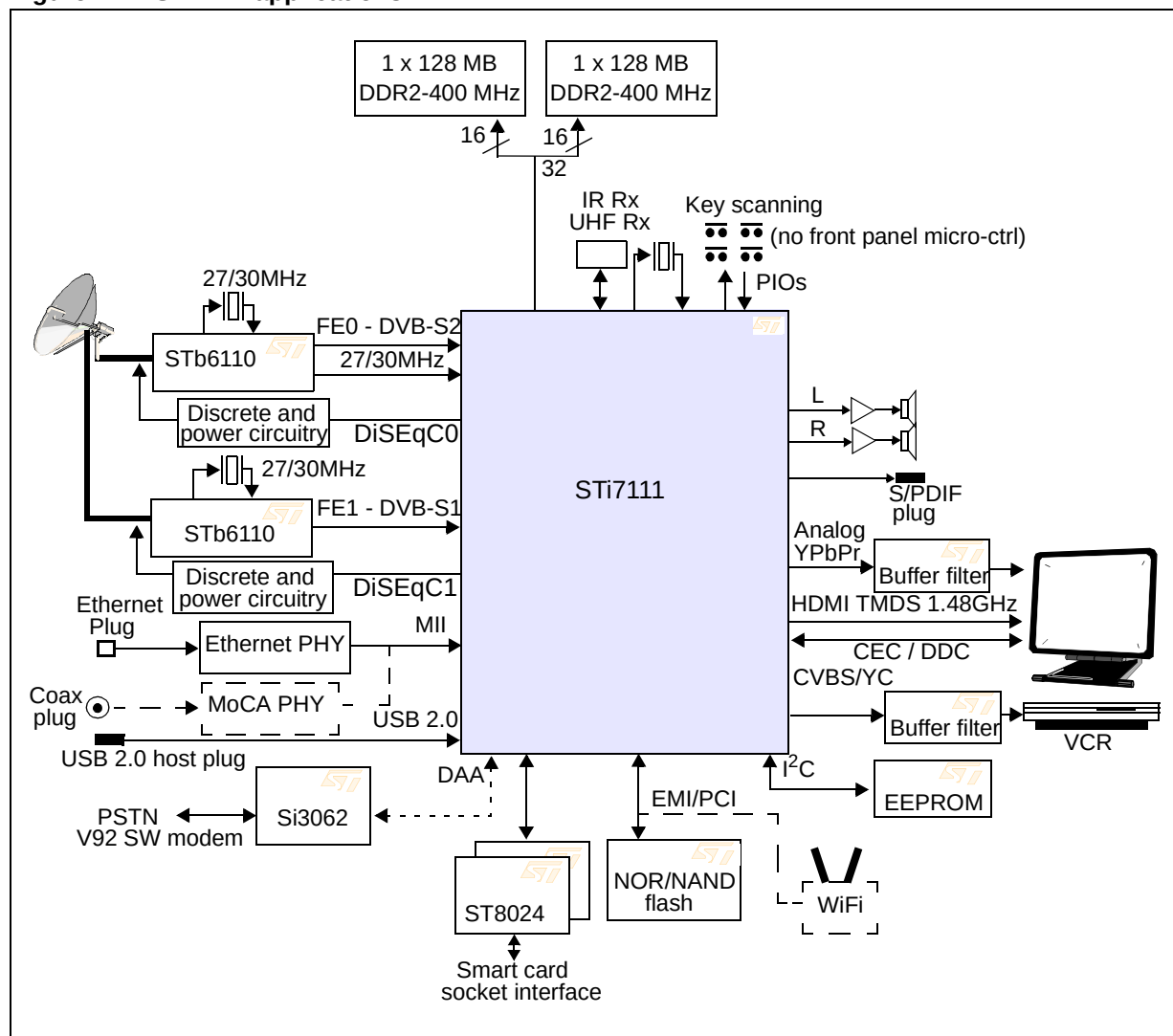


1 Description

The STi7111 is an HD set-top box / full back-end processor for satellite set-top boxes, compliant with ATSC, SMPTE VC-1, DVB-S2, DIRECTV, DCII and ARIB BS4 specifications. It provides very high performance for low-cost HD systems. With enhanced performance compared to the STi7109, it includes both VC-1 and H.264 video decoders for new, low bitrate applications.

The main platform target for the STi7111 is the DVB-S2 zapper. Optionally the device can be used in a client box through IP over Ethernet, Multimedia over Coax Alliance (MoCA) or WiFi.

Figure 1. STi7111 applications



2 Revision history

Table 1. Document revision history

Date	Revision	Changes
19-Dec-2007	1	Initial release.

Please Read Carefully:

Information in this document is provided solely in connection with ST products. STMicroelectronics NV and its subsidiaries ("ST") reserve the right to make changes, corrections, modifications or improvements, to this document, and the products and services described herein at any time, without notice.

All ST products are sold pursuant to ST's terms and conditions of sale.

Purchasers are solely responsible for the choice, selection and use of the ST products and services described herein, and ST assumes no liability whatsoever relating to the choice, selection or use of the ST products and services described herein.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted under this document. If any part of this document refers to any third party products or services it shall not be deemed a license grant by ST for the use of such third party products or services, or any intellectual property contained therein or considered as a warranty covering the use in any manner whatsoever of such third party products or services or any intellectual property contained therein.

UNLESS OTHERWISE SET FORTH IN ST'S TERMS AND CONDITIONS OF SALE ST DISCLAIMS ANY EXPRESS OR IMPLIED WARRANTY WITH RESPECT TO THE USE AND/OR SALE OF ST PRODUCTS INCLUDING WITHOUT LIMITATION IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE (AND THEIR EQUIVALENTS UNDER THE LAWS OF ANY JURISDICTION), OR INFRINGEMENT OF ANY PATENT, COPYRIGHT OR OTHER INTELLECTUAL PROPERTY RIGHT.

UNLESS EXPRESSLY APPROVED IN WRITING BY AN AUTHORIZED ST REPRESENTATIVE, ST PRODUCTS ARE NOT RECOMMENDED, AUTHORIZED OR WARRANTED FOR USE IN MILITARY, AIR CRAFT, SPACE, LIFE SAVING, OR LIFE SUSTAINING APPLICATIONS, NOR IN PRODUCTS OR SYSTEMS WHERE FAILURE OR MALFUNCTION MAY RESULT IN PERSONAL INJURY, DEATH, OR SEVERE PROPERTY OR ENVIRONMENTAL DAMAGE. ST PRODUCTS WHICH ARE NOT SPECIFIED AS "AUTOMOTIVE GRADE" MAY ONLY BE USED IN AUTOMOTIVE APPLICATIONS AT USER'S OWN RISK.

Resale of ST products with provisions different from the statements and/or technical features set forth in this document shall immediately void any warranty granted by ST for the ST product or service described herein and shall not create or extend in any manner whatsoever, any liability of ST.

ST and the ST logo are trademarks or registered trademarks of ST in various countries.

Information in this document supersedes and replaces all information previously supplied.

The ST logo is a registered trademark of STMicroelectronics. All other names are the property of their respective owners.

© 2007 STMicroelectronics - All rights reserved

STMicroelectronics group of companies

Australia - Belgium - Brazil - Canada - China - Czech Republic - Finland - France - Germany - Hong Kong - India - Israel - Italy - Japan - Malaysia - Malta - Morocco - Singapore - Spain - Sweden - Switzerland - United Kingdom - United States of America

www.st.com