

HD decoder for interactive digital cable set-top box

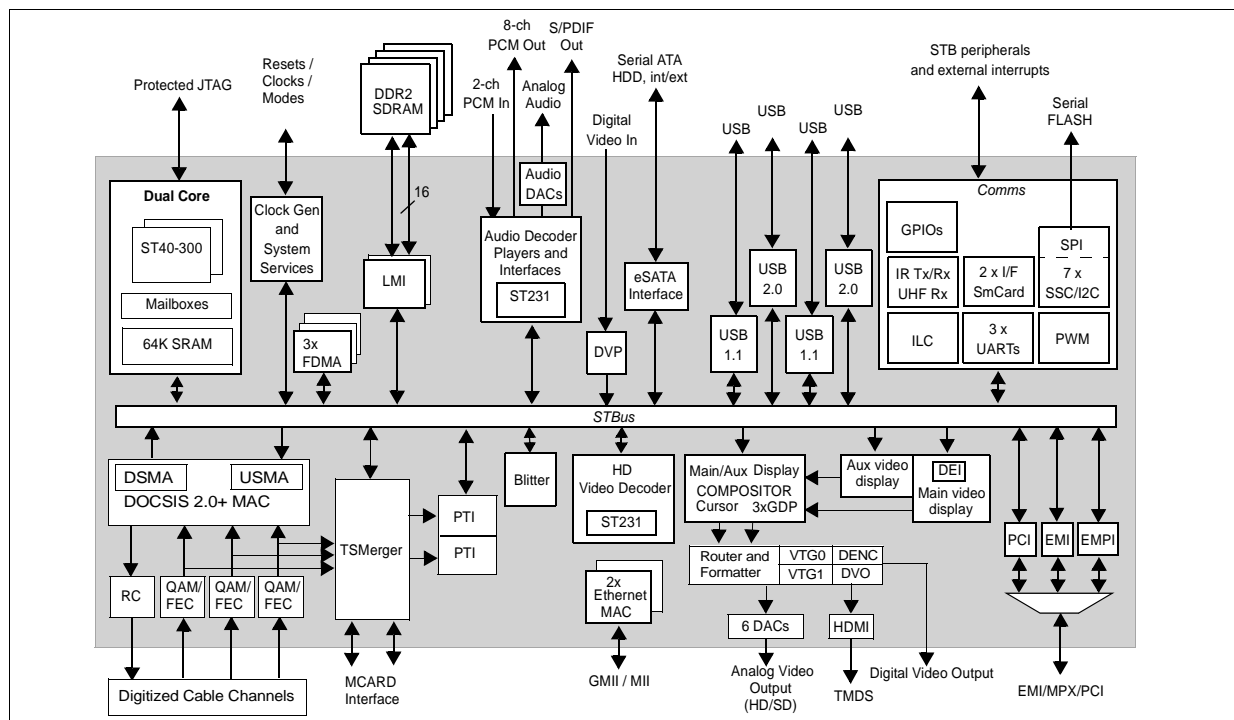
Data Brief

Features

- Three integrated cable receiver / demodulators
- DOCSIS/EuroDOCSIS 2.0 cable modem with support for DOCSIS 3.0 down-stream channel-bonding
- SCTE-55 part 1 and 2 physical layer support for CableCARD™
- Dual Core architecture providing more than 1600 DMIPS of processing performance
- Linux®, Windows® CE and OS21 compatible
- Firmware based multi-standard HD video decoder for:
 - H.264 / MPEG-4 AVC HP@L4
 - MPEG-2 MP@HL
 - SMPTE VC-1 AP@L3
- Firmware based multi-standard audio processor for:
 - MPEG-1 I/II/III (MP3), MPEG-2 ACC (AAC-LC)
 - MPEG-4 HE AAC (aacPlus)
 - Dolby® Digital (AC-3), Dolby® Digital Plus
- Firmware based PTI (programmable transport stream processor)
- DVR support, and trick play modes
- Dual display HD and SD
- 2D blitter graphics with extension to pseudo 3D and video mosaic support
- Multi-level layered security
- Interfaces include: USB, Ethernet, HDMI™, eSATA.

Description

The STi7141 is a highly integrated SoC (system-on-chip) designed to meet the demanding needs of the interactive cable set top box market place. The STi7141 integrates all the major system functions into a single device, and provides world leading, multi-layer, advanced security technologies to protect valuable video and audio assets.



1 Applications

The STi7141 is a low-cost, networkable, HDTV set-top box device, with an embedded DOCSIS cable modem capable of providing DSG (DOCSIS set-top gateway), interactive multimedia and internet access for the digital cable market.

The STi7141 provides an enhanced performance, lower-cost replacement to the two-chip solution STv0498 and STi7109.

The following figures describe typical set-top box applications based on the STi7141. These applications maintain a high degree of software compatibility with set-top box designs based on the STv0498 and STi7109.

Figure 1. STi7141 application: HD input SD display cable set-top box platform with DOCSIS 2.0

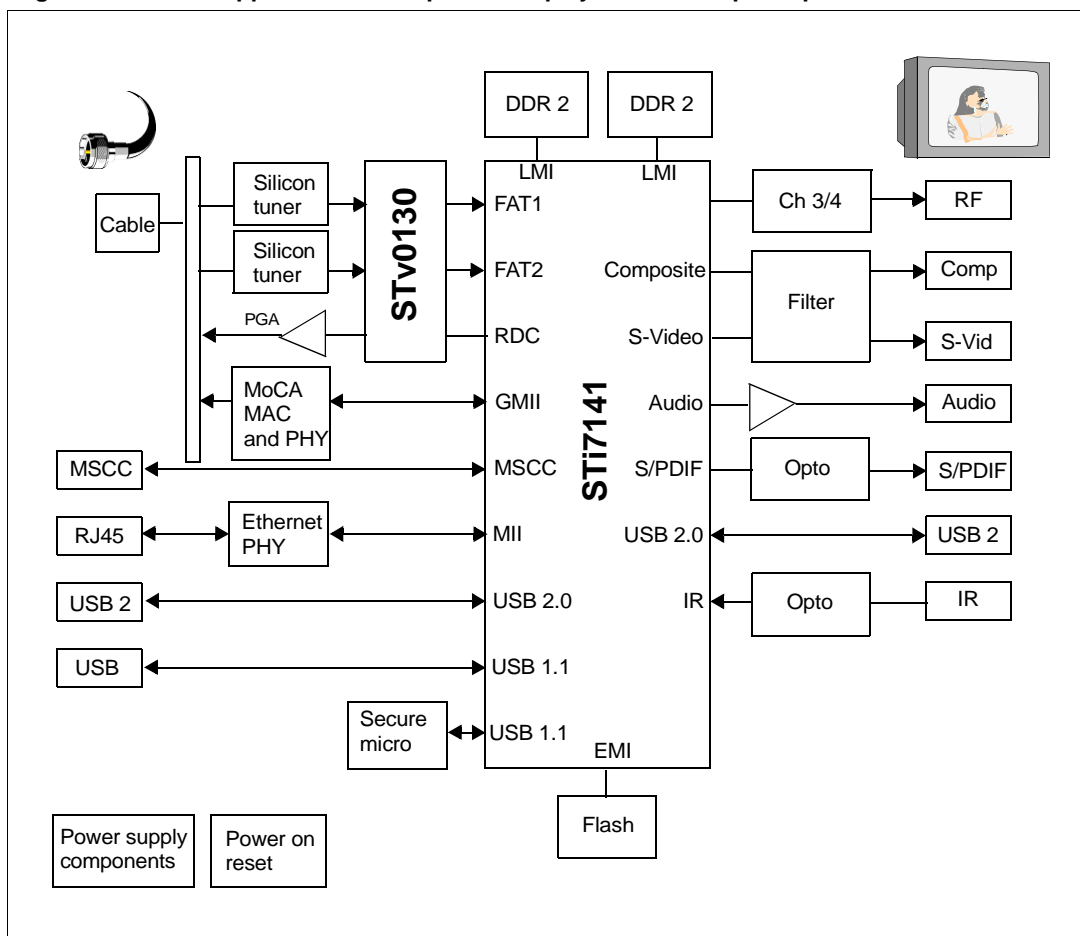
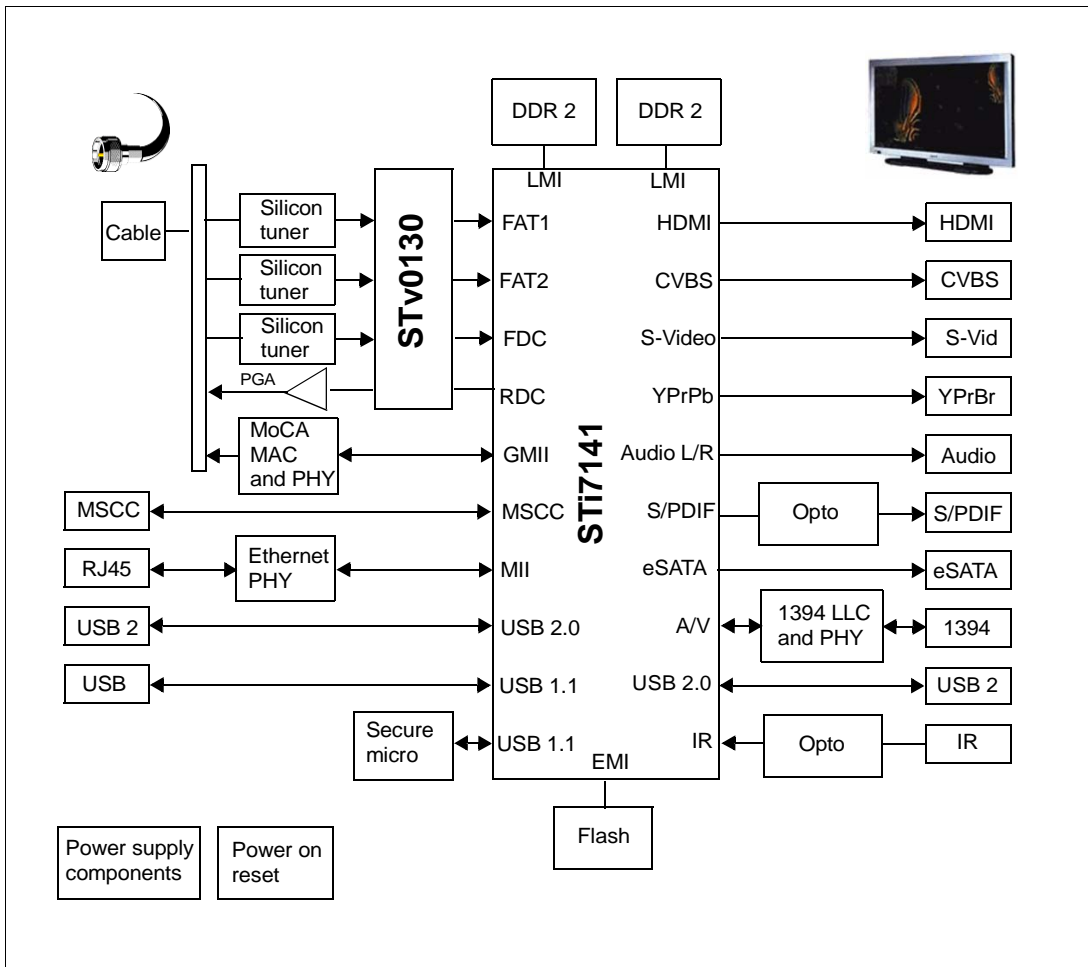


Figure 2. STi7141 application: HD input HD display cable set-top box platform with DOCSIS 2.0



2 Ordering information

Table 1. Ordering information

Order code	Packaging
STi7141ZWA	PBGA 580 + 100 balls, 35 x 35 mm

3 Revision history

Table 2. Document revision history

Date	Revision	Changes
09-Sep-2008	1	Initial release

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