

HD decoder for interactive digital cable set-top boxes



STMicroelectronics

DOCSIS-enabled STi7141 HD decoder for integrated, cost-effective home entertainment solutions

The STi7141 is a highly-integrated system-on-chip designed to meet the demanding needs of the interactive cable set-top box market. It integrates, together with a DOCSIS/EuroDOCSIS 2.0 cable modem with channel-bonding capability, decoding for H.264, MPEG-2 and VC-1 streams, advanced security features (including smartcards), DVR support, dual HD/SD display, and support for USB, Ethernet, HDMI and eSATA interfaces.

Key features

- 3 integrated cable receiver/demodulators
- DOCSIS/EuroDOCSIS 2.0 cable modem with support for DOCSIS 3.0 downstream channel bonding
- SCTE-55 part 1 and 2 physical layer support for CableCARD™
- Dual core architecture providing more than 1800 DMIPS of processing performance
- Linux, Windows® CE and OS21 compatible
- Firmware-based multi-standard HD video decoder for H.264, MPEG-2, SMPTE VC-1
- Firmware-based multi-standard audio processor for MPEG-1 I/II/III (MP3), MPEG-2 AAC, MPEG-4 HE AAC, Dolby® Digital, Dolby® Digital Plus

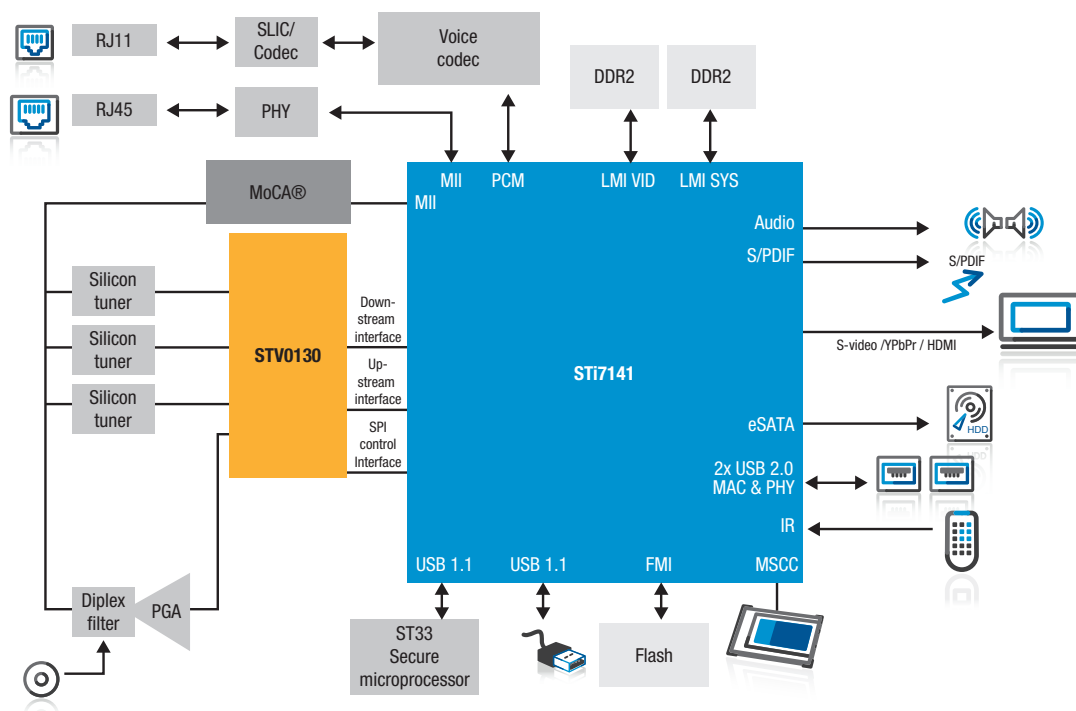
- Firmware-based programmable transport stream processor
- DVR support and trick play modes
- Dual display: HD and SD
- 2D blitter graphics with acceleration for 3D-like UI effects and video
- Multi-layered security
- Interfaces include: USB, Ethernet, HDMI, eSATA
- mosaic support

Targeted applications

- High-end, interactive cable set-top boxes



Typical application block diagram



Design resources

The STi7141 has a certified reference design allowing a fast copy-paste approach to designing your set-top box platform. For ordering information, please contact your ST sales representative.

