

SC2005 Single-Chip Source Decoder



The SC2005 is the second-generation of LSI Logic's single-chip digital TV source decoders which incorporates ICAM technology used by the NDS Videoguard™ conditional access system. It is a highly integrated solution for designing cost-effective set-top boxes that support multiple targeted interactive applications such as web browsing, online shopping and home banking.

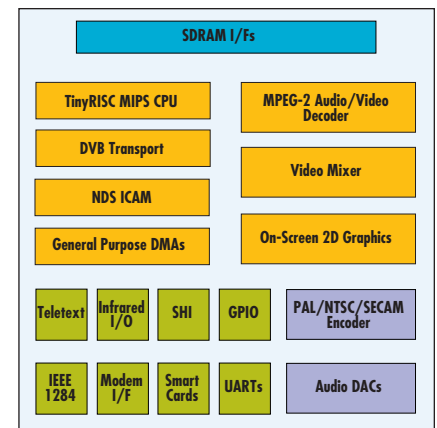
With the integration of the NDS ICAM technology, LSI Logic continues its strategy of providing the most highly integrated solutions for digital set-top boxes incorporating the NDS Videoguard conditional access. The SC2005 provides a smooth migration path for current NDS customers employing previous generations of ICAM using LSI Logic's L641X8 family of discrete transport solutions.

In addition to the ICAM, the SC2005 features an IDE/ATA interface allowing set-top box manufacturers to seamlessly design-in hard disk storage media for support of digital recording applications. The SC2005 chip incorporates a high performance 108-MHz, 32-bit, TinyRISC® MIPS microprocessor, making it one of the highest performing set-top box architectures on the market.



SC2005 brings performance and functionality to the next-generation consumer products

The Communications Company™



SC2005 Block Diagram

FEATURES

- Industry-standard TinyRISC® 108Mhz MIPS CPU
- 5-Plane graphics engine
- NDS conditional access (ICAM)
- ATA/IDE interface
- ISO/IEC 13818 (MPEG-2) MP@ML-compliant
- DVB transport coprocessor and descrambler
- Unified OSG/CPU/Transport memory architecture and dedicated A/V memory
- Integrated multi-standard encoder
- Independently programmable Video DACs
- Integrated Audio DACs
- Macrovision 7.1 (SC2015)
- IEEE 1284 port
- Smart Card Interfaces
- UARTs / Modem Codec Interface
- Infrared ports
- Serial Host Interface
- General-purpose I/Os
- Embedded debug capabilities (JTAG)
- Dolby AC3 support (SC2105)
- DVD support (SC2105)

LSI LOGIC®

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LSI Logic's Integra Set-top box Development Platform (SDP2005)

A COMPREHENSIVE PLATFORM FOR INTERACTIVE SET-TOP BOXES

With maximum integration, flexibility and reliability, the SC2005 combined with LSI Logic's L64733/34 Tuner-Receiver chip set offers a complete three-chip satellite set-top box solution. In addition, the SC2005 complements LSI Logic's Cable and Digital Terrestrial Channel Products offering a complete End-to-End Silicon solution for set-top box manufactures.

The LSI Logic Integra Set-top Development Platform (SDP2005) provides a complete development environment from powerful hardware to industry standard software components. The SDP2005 is a comprehensive platform that accelerates the development of customized, leading-edge set-top box solutions. Manufactures and network operators are able to design a complete set-top box solutions, ranging from graphics-rich satellite broadcast receiver boxes to advanced entertainment systems supporting web browsing, video gaming or high-speed Internet access.

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