Single-chip enhanced TV controller

FLI326xxH series of ICs for complete LCD TV solutions

The FLI326xxH series of ICs provide innovative SoC controllers designed for flat-panel display TVs, LCD TVs, and other emerging digital display applications. This single-chip solution handles video and computer graphics inputs in virtually any format resolution and its output port delivers unparalleled image quality, supporting display resolutions of up to 1080p. The FLI326xxH also features DisplayPort technology providing high bandwidth and low cost compared to conventional digital interfaces.

This combination of features makes the FLI326xxH the ideal solution for a high-quality, cost-effective, integrated TV.

Key features

- Dual 10-bit triple ADCs with capture up to 165 MHz
- Integrated 3D video decoder
- Flexible digital/analog capture up to 165 MHz
- Integrated dual HDMI 1.3 ports with integrated HDCP key
- Next generation true 10-bit Faroudja DCDi Cinema® format processing
- Flexible DDR2/DDR1 memory interface 32 bits wide
- Advanced picture-in-picture (PIP) features capabilities
- Advanced bit-mapped OSD controller
- Embedded 10-bit dual-channel LVDS for 1080p panel support
- Fully integrated, multi-standard worldwide analog/digital audio decoder and postprocessor
- xvYcc support based on IEC 61966-2-4 color standard
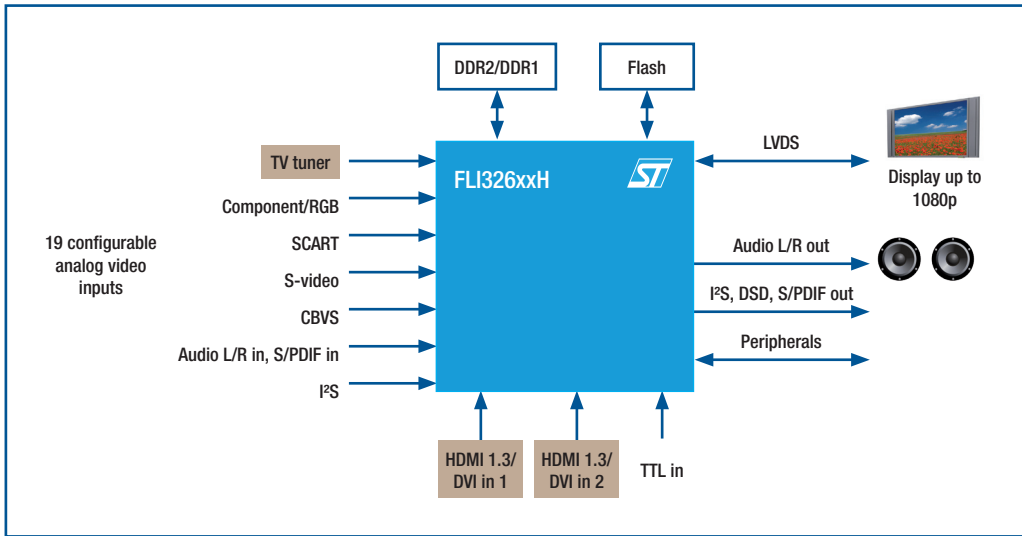- Deep color and wide gamut support

Key benefits

- Superior video quality with Faroudja DCDi Cinema® video processing technology
- Exclusive level of video quality technology previously seen on Faroudja home theater systems now available in a single-chip solution
- Full HD capability up to 1080p in/out support
- Additional integration of full audio processing, low-power monitor circuit, UARTs, LBADC, 3D-VD, VBI dataslicer, and more to reduce the system BOM costs
- Integrated DisplayPort 1.1a compliant receiver (FLI32656)
- VBI slicer including WST version 2.5 support
- Faroudja Real Color – Advanced Color and Contrast management
- Faroudja TrueLife™ video enhancer

Targeted applications

- LCD and PDP TVs
- DLP, LCD, and LCOS front and rear projection

FLI326xxH system architecture

Software development and evaluation platform

STMicroelectronics provides a comprehensive suite of hardware and software tools to enable rapid product development, including a complete turnkey reference design available with source code for quick time-to-market.

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