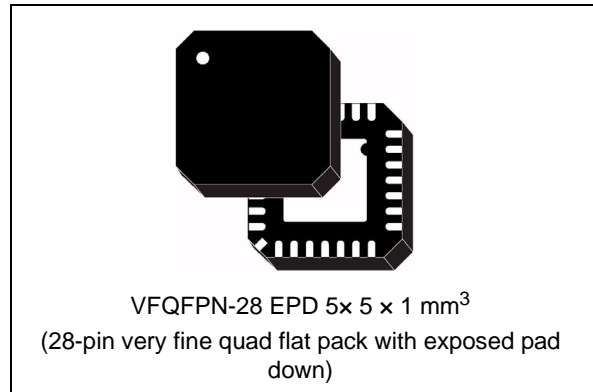


Audio/video buffer and four-channel SD video filter

Data brief

Features

- I²C bus control
- Video section:
 - 7-MHz, low-pass filters on four encoder video inputs
 - DC-coupled inputs
 - Each output is capable of driving an AC- or DC-coupled, 150-Ω video load at 3 V pp and CVBS output can drive a dual, 75-Ω video load
 - Fixed gain of 6 dB for each channel
 - Selective video output muting
- Audio section:
 - Stereo sound capability
 - Differential or single-ended audio inputs
 - Audio outputs drive 2-kΩ loads at 3 V RMS
 - Selectable audio gain of 0 to 28 dB
 - Audio output muting
 - 9 V to 12 V single supply operation
 - Pop-noise suppression management
- Low power mode
 - Audio/video standby function



Applications

- Set-top boxes (IP, cable, satellite, terrestrial)
- Integrated digital TV plug-in
- Blu-ray and DVD players

Description

The STV6432 is a fully integrated solution for filtering and buffering standard-definition signals, and buffering stereo audio signals from the MPEG decoder of a digital receiver, Blu-ray or DVD player, or iDTV plug-in.

The STV6432 embeds four buffers with 7-MHz, SD, low-pass filters, and a dual audio amplifier that operates with either differential or single-ended inputs.

Table 1. Device summary

Order code	Temperature range	Package	Packaging
STV6432AJ	0 to 70 °C	VFQFPN-28 (5 × 5 mm ²) EPD	Tray
STV6432AJT	0 to 70 °C	VFQFPN-28 (5 × 5 mm ²) EPD	Tape and reel

1 Introduction

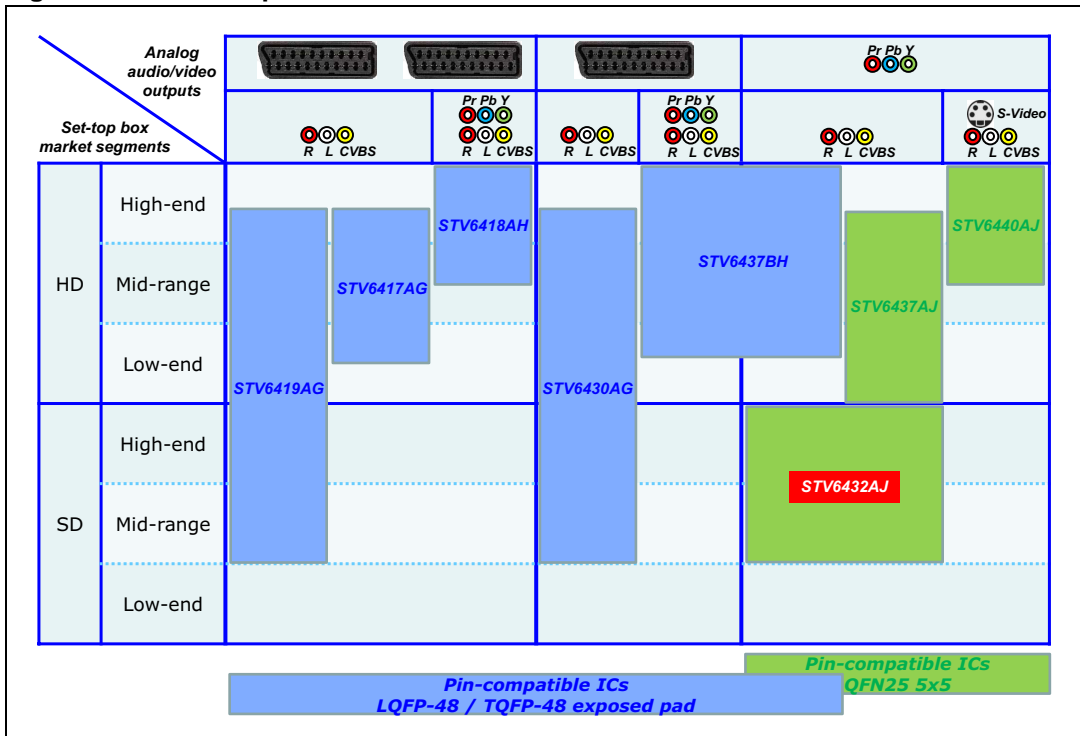
The STV6432 is an I²C-controlled integrated circuit for filtering and buffering audio and video signals in any consumer electronics application with SD outputs. It can be used in products such as set-top boxes or DVD/BD players and recorders.

The STV6432 has a high level of integration and requires only the usual passive components for decoupling and termination. The tiny package VFQFPN-28 ensures a small footprint.

The STV6432 is one of the family of three, pin-compatible products (Figure 1) that complete the new generation of audio and video switches and buffers from STMicroelectronics. Together they cover, both technically and price-wise, the whole market spectrum from mid-range SD retail (zapper set-top boxes or basic recorders) up to DVR HD operators (set-top boxes or recorders with HD component output).

Features	Benefits
DC-coupled video inputs.	Reduces component count.
AC- and DC-coupled high-drive capability video outputs (for 70-Ω (minimum) loads).	Connects to any type of display and drives several composite and RF modulator outputs without external active components.
Smart pop-noise manager.	Allows silent swap between active and standby modes.
Selective standby command for audio or each set of SD video outputs.	As low as 4-mW standby consumption supporting compliance to 0.5-W standby requirements.
8-step selectable audio gain up to +28 dB, supporting output of 3.1 V RMS (minimum).	Easy fine-tune of THD and SNR depending on requirements, whilst matching any specific audio output level, including China Cable, and saving external op-amps.
Pin-compatibility with two other products.	Combines single-device space-saving (up to 50%) benefits with commodity price/flexibility benefits to allow a single PCB design covering the entire market spectrum.
Pin-compatibility with STV6440AJ and STV6437AJ.	Provides dual-source solution at no cost premium in case of market shortage or sudden rise in demand.

Figure 1. Pin-compatible devices



2 Revision history

Table 2. Document revision history

Date	Revision	Changes
12-Aug-2011	1	Initial release.

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