

# NXP Introduces Intelligent Switches Supporting HDMI 1.4

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NXP Semiconductors today unveiled intelligent switches supporting the new HDMI 1.4 specification released in June 2009.

The NXP TDA19997 and TDA19998 smart switches support the Audio Return Channel (ARC) feature, a new option introduced in the [HDMI 1.4](#) release, which reduces the number of cables required to deliver audio upstream for processing and playback. Building on the success of previous HDMI smart switches from NXP, the TDA19997 and TDA19998 also include support for all mandatory 3D over HDMI features. NXP is one of the first semiconductor companies to deliver silicon supporting HDMI 1.4.

The new Audio Return Channel specified in HDMI 1.4 enables HDTVs directly receiving audio and video content to send the audio stream to an amplification system over the [HDMI cable](#), eliminating the need for an extra cable. The NXP TDA19997 and TDA19998 smart switches also include built-in auto-adaptive equalizers that can handle up to four HDMI 1.4 inputs, automatically maintaining audio-visual quality over HDMI cables up to 30m in length. Their highly integrated design offers a compelling solution that eliminates the need for external components, reducing the overall Bill of Materials for TV manufacturers while delivering an enhanced viewing experience. The TDA19997 and TDA19998 are embedded with five EDID extensions for HDMI and VGA, as well as high levels of ESD protection.

“By the end of this year, nearly one billion HDMI-ready systems will

have been shipped worldwide. With the Audio Return Channel, [HDTV](#) viewers will be able to enjoy top quality sound, without cable clutter,” said Denis Marsault, media interfaces product line, NXP Semiconductors. “By bringing our HDMI 1.4 smart switches to market quickly, we’re demonstrating our commitment to helping TV manufacturers deliver exceptional high-definition entertainment with the most energy-efficient solutions that fit easily into the home theater environment.”

The TDA19998 smart switches take advantage of NXP’s patented F3 (Fast, Fair and Faithful) architecture, which guarantees fast port switching between HDMI devices while keeping a secured HDCP-protected HDMI stream at the output. The F3 architecture also enables best-in-class power efficiency of all system in both active and stand-by modes.

The NXP TDA19997 and TDA19998 comprise the second generation of NXP’s highly popular HDMI smart switches, and are part of a wide portfolio of highly scalable solutions for the digital home, enabling TV makers to target a broad audience - from the most price-sensitive segments to the most feature-oriented markets. The TDA19997 and TDA19998 are pin-to-pin compatible with previous generation smart switches from NXP, and provide TV makers with unprecedented flexibility in adapting to end user demand in terms of price, features and power consumption, as well as operator and content providers’ requirements for security and performance.

Source: NXP

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