



## NXP HDMI 1.4a transmitter TDA19988 in HVQFN64

# Deliver 3D full HD in STBs with HDMI 1.4a transmitter

This advanced transmitter enables a 3D set-top box full HD up to 1080p, "x.v.Color", and CEC – at unprecedented power savings, size, and cost.

### Key features

- ▶ 3D frame packing, side by side, top-bottom, up to 1080p
- ▶ 60 mW power consumption in 720p 50/60 Hz
- ▶ <20  $\mu$ W power consumption in standby mode
- ▶ "x.v.Color" support, including Adobe RGB
- ▶ Embedded CEC without external oscillator
- ▶ HDCP 1.4
- ▶ RGB, YCbCr, DDR, ITU656 support
- ▶ Two I<sup>2</sup>S-bus audio input channels, one SPDIF channel
- ▶ Software drivers
- ▶ HVQFN64 package (9 x 9 x 0.85 mm, 64 pins)

### Key benefits

- ▶ HD ready and Full HD 1080p 3D solution
- ▶ Extremely low power
- ▶ Optimized BoM
- ▶ Flexible design-in for easy system integration
- ▶ Fast time-to-market
- ▶ Small size, easy layout, designed for two-layer PCB
- ▶ User-friendly design tools

### Applications

- ▶ STBs
- ▶ Media boxes
- ▶ Low-cost systems that use a two-layer PCB

This HDMI 1.4a transmitter, housed in a 64-pin HVQFN package, enables 3D-capable set-top boxes at a lower price point. Housed in a 64-pin HVQFN package, the device helps reduce cost by making it possible to use an inexpensive, two-layer PCB design with a full 24-bit RGB interface. For added convenience, the device is HDMI, HDCP, and CEC certification compliant.

### Development tools

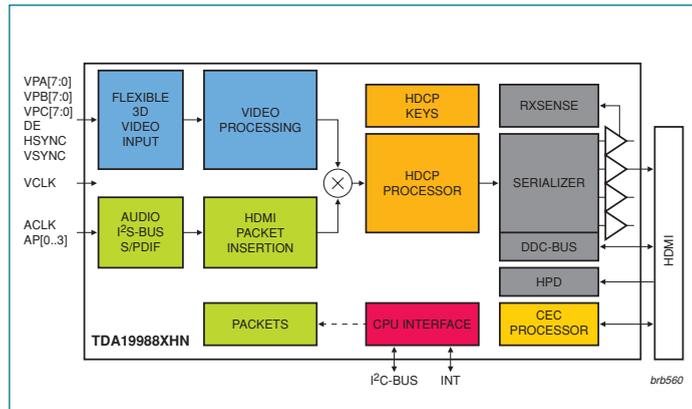
The development kit includes an evaluation board and a standard schematic and layout, as well as Android and standard drivers with example applications.



### Authorized Test Center (ATC)

NXP's ATC laboratory, located in Caen, France, qualifies and certifies devices according to HDMI, HDCP, and CEC requirements.

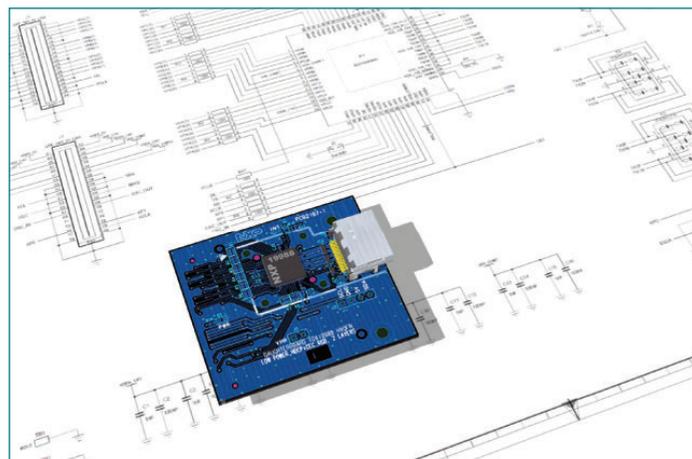
### TDA19988xHN block diagram



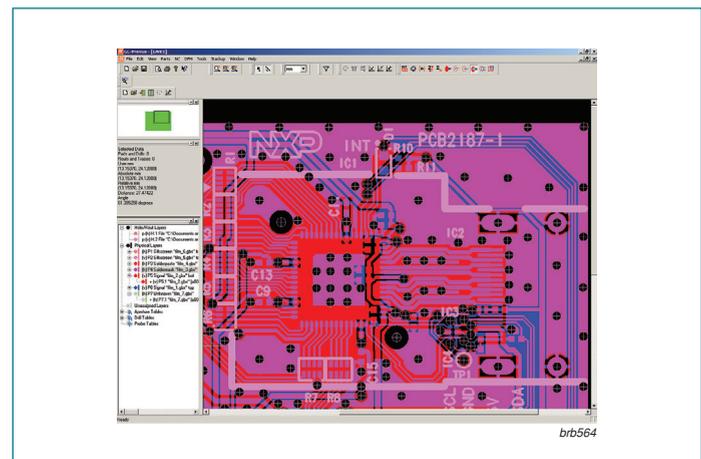
### Use case: set-top box, media box



### Evaluation tool includes an evaluation board and a standard schematic and layout, as well as Android and standard drivers with example applications



### The HVQFN64 version enables a low-cost, two-layer PCB design



Type number	Description	Package
TDA19988AHN	NXP HDMI 1.4a transmitter with HDCP encryption engine	HVQFN64 (9 x 9 x 0.85 mm, 64 pins)
TDA19988BHN	NXP HDMI 1.4a transmitter without HDCP encryption engine	HVQFN64 (9 x 9 x 0.85 mm, 64 pins)



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