

### FEATURES

#### APIX<sup>®</sup>2 transmitter with HDCP

- High-bandwidth Digital Content Protection (HDCP) 1.4 support with internal preprogrammed HDCP keys
- Dual channel encryption engine supports simple daisy-chain implementation for remote displays
- Independent encryption of video and audio
- Support for two independent video streams and two synchronous audio streams
- Up to 3000 Mbps sustained downstream link bandwidth
- Up to 187.5 Mbps upstream link bandwidth
- Media independent interface (MII), serial port interface (SPI), I<sup>2</sup>C, and GPIO interfaces for sideband communication
- Dual High-Definition Multimedia Interface (HDMI<sup>®</sup>) receiver
- Supports all HDMI video resolutions up to the maximum APIX video link bandwidth of 2.57 Gbps
- All mandatory and additional 3D video formats supported
- HDCP 1.4 decryption support on each port
- Hardware controller for automated HDCP repeater functions across APIX and HDMI HDCP blocks
- HDCP repeater support, up to 24 KSVs supported
- Integrated CEC controller, CEC 1.4 compatible
- Adaptive TMDS equalizer

#### ITU-R BT.656 support

- 8-bit ITU-R BT.656 interface with embedded timing
- 720p supported at 148.5 MHz clock rate

#### Audio support

- HDMI audio extraction support
- Supports multiplexed (TDM) I<sup>2</sup>S audio I/O
- On-chip SRC for synchronization to external master clocks and to synchronize two independent audio streams

#### General

- Dual interrupt controller with APIX link status reporting
- Internal EDID RAM

100-lead LQFP\_EP, 14 mm × 14 mm package

Qualified for automotive applications

### APPLICATIONS

- Automotive infotainment
- Infotainment head units
- Rear seat entertainment systems
- Automotive media port applications
- HDMI repeaters and video switches

For more information about the [ADV7682](#), including the complete data sheet, contact your local Analog Devices, Inc., sales office at [www.analog.com/sales](http://www.analog.com/sales).

**Advantiv**  
Advanced Television Solutions  
by Analog Devices

Rev. SpA

[Document Feedback](#)

Information furnished by Analog Devices is believed to be accurate and reliable. However, no responsibility is assumed by Analog Devices for its use, nor for any infringements of patents or other rights of third parties that may result from its use. Specifications subject to change without notice. No license is granted by implication or otherwise under any patent or patent rights of Analog Devices. Trademarks and registered trademarks are the property of their respective owners.

### SIMPLIFIED FUNCTIONAL BLOCK DIAGRAM

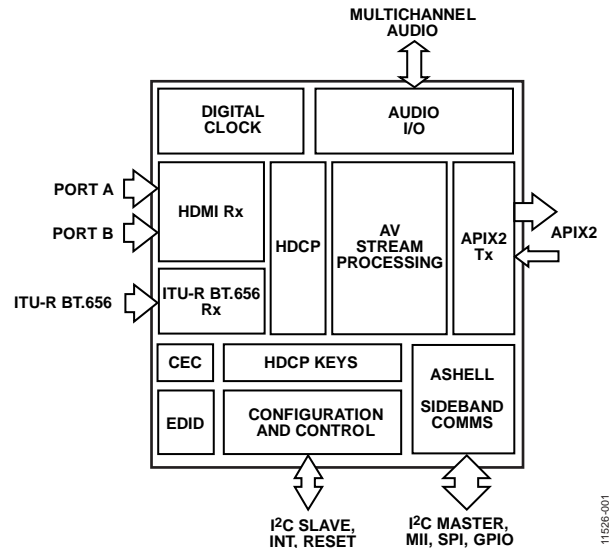


Figure 1.

11526-001

**NOTES**

APIX® is a registered mark of INOVA Semiconductors GmbH.

I<sup>2</sup>C refers to a communications protocol originally developed by Philips Semiconductors (now NXP Semiconductors).

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Display Interface IC category](#):*

*Click to view products by [Analog Devices manufacturer](#):*

Other Similar products are found below :

[AD9887AKSZ-140](#) [AD9887AKSZ-170](#) [PI3HDX1204B1ZHEX](#) [PI3HDX1204EZHEX](#) [HD3SS213ZQER](#) [SN65DP149RSBR](#) [RSF34W100RF](#)  
[RSF33W100RC](#) [SN75DP126SSRHUR](#) [AD9985ABSTZ-110](#) [TDP142RNQT](#) [AD9398KSTZ-150](#) [AD9398KSTZ-100](#) [AD9880KSTZ-100](#)  
[AD9880KSTZ-150](#) [AD9883ABSTZ-110](#) [AD9883ABSTZ-140](#) [AD9883AKSTZ-110](#) [AD9883AKSTZ-140](#) [AD9887AKSZ-100](#) [AD9888KSZ-](#)  
[100](#) [AD9888KSZ-140](#) [AD9888KSZ-170](#) [AD9983AKCPZ-170](#) [AD9983AKSTZ-140](#) [AD9984AKCPZ-140](#) [AD9984AKCPZ-170](#)  
[AD9984AKSTZ-140](#) [AD9984AKSTZ-170](#) [AD9985AKSTZ-110](#) [AD9985BSTZ-110](#) [ADV7623BSTZ-P](#) [PI3DPX1203ZHEX](#)  
[PI6ULS5V9306UEX](#) [DS90C3201VS/NOPB](#) [DS90C3202VS/NOPB](#) [DS90CF384AQMTNOPB](#) [DS90UB901QSQE/NOPB](#)  
[DS90UB902QSQE/NOPB](#) [DS90UB903QSQE/NOPB](#) [DS90UB904QSQE/NOPB](#) [DS90UB913QSQE/NOPB](#) [DS90UB913QSQNOPB](#)  
[DS90UB914QSQ/NOPB](#) [DS90UR905QSQE/NOPB](#) [DS90UR906QSQE/NOPB](#) [DS90UR908QSQE/NOPB](#) [SN65DP149RSBT](#)  
[SN75DP118RHHR](#) [SN75DP119RGYR](#)