

APIX2 Transmitter with HDMI and HDCP Support

FEATURES

- ▶ APIX2 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
 - ▶ Up to 3000 Mbps sustained downstream link bandwidth
 - ▶ Up to 187.5 Mbps upstream link bandwidth
 - ▶ Media independent interface (MI), serial port interface (SPI), I²C, GPI and GPO interfaces for sideband communication
- ▶ High-Definition Multimedia Interface (HDMI) 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
 - ▶ 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
 - ▶ 5 V detect and Hot Plug assert
- ▶ 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
 - ▶ Advanced audio muting feature
 - ▶ Supports time division multiplexed (TDM) I²S audio I/O
 - ▶ On-chip SRC for synchronization to external main clocks
- ▶ General
 - ▶ Dual interrupt controller with APIX link status reporting
 - ▶ Internal EDID RAM
 - ▶ Any-to-any 3 × 3 color space conversion (CSC) matrix
 - ▶ 64-lead LFCSP, 9 mm × 9 mm package
- ▶ AEC-Q100 qualified for automotive applications

SIMPLIFIED FUNCTIONAL BLOCK DIAGRAM

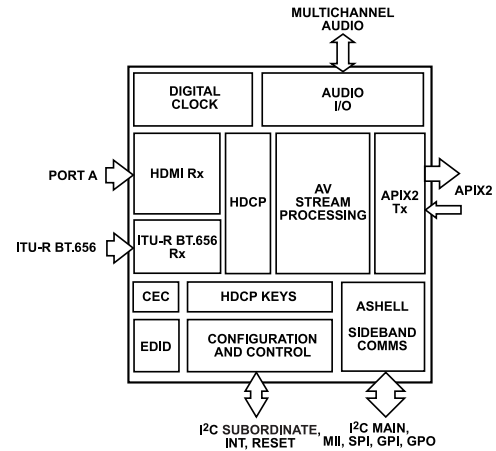


Figure 1.

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APPLICATIONS

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

Rev. SpC

DOCUMENT FEEDBACK

TECHNICAL SUPPORT

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