

# PI3HDX511E

## Ultra-Low Power HDMI1.4b ReDriver/Level Shifter

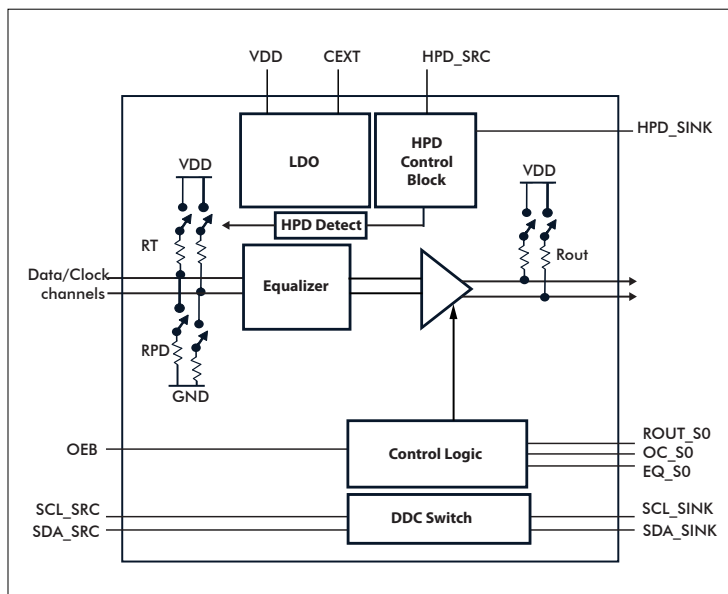
PI3HDX511E is a HDMI 1.4b ReDriver and dual mode Level Shifter up to 3.4Gbps data rate with 48-bpp DeepColor, pin-compatible with PI3HDX511A product.

This device is ideal solution to extend system’s battery operation hours with typical 2uA standby and 80mA power supply current, comparing to the Retimer device. The ReDriver amplifies and reshapes AC and DC coupled input signals to the HDMI1.4b compliant signals at the HDMI or dual-mode source side systems. Programmable input equalization helps to solve the compliance jitter issues, creating in the non-standard HDMI source system with robust ESD/EOS protection of 8kV.

### Application

- Notebook and Desktop computers
- Video streaming devices
- A/V receivers, Switch boxes and Dongle

### Block Diagram



### Features

- Ultra-Low power HDMI 1.4b compliant ReDriver with dual mode Level Shifter
- Operation up to 3.4 Gbps per lane
- Max 4K resolution (4096 x 2160 at 30fps), 48-bit per pixel Deep Color supports
- Standby current typical 2uA
- Flexible three steps equalization control (2.5, 5, 7.5 dB) and Pre-emphasis control 3 steps (0, 1.5, 2.5 dB)
- Automatic output squelch and HPD detection for power saving states management
- DC coupled or AC coupled differential inputs
- Integrated DDC level shifter
- Single power supply: 3.3V
- Integrated ESD protection on I/O pins. 8kV contact and 8kV HBM
- Package: 32-pin TQFN(ZLS32, 3x6mm)
- Pin-to-pin compatible with PI3HDMI511 and PI3HDX511A

### Application Diagram

