

PI3HDX621

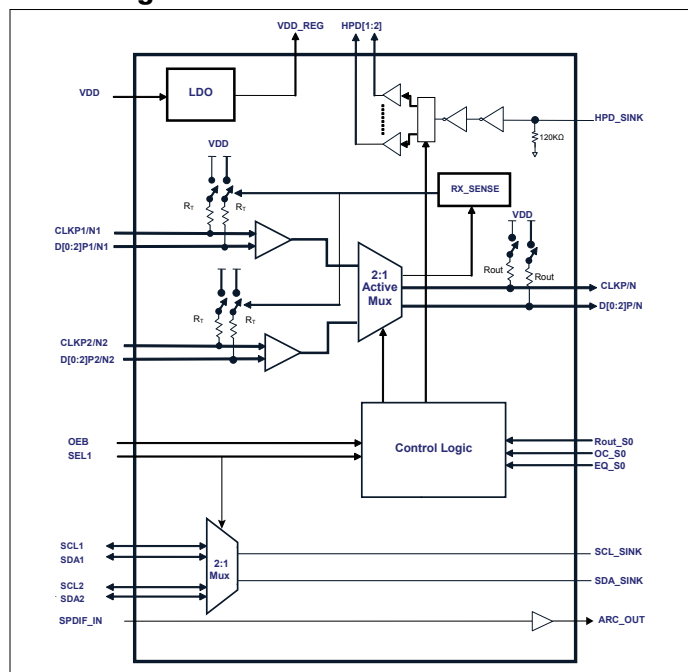
2-port HDMI™ 1.4 Sink-Switch with Integrated ARC and Fast Switching

PI3HDX621 is the active-type 2:1 switch compliant to HDMI 1.4b specification, featuring equalized TMDS input and pre-emphasized TMDS outputs, with 3.4 Gbps high speed and long cable application.

Two TMDS input ports switch fast in the built-in high speed Mux through port selection pins. Redriver boost the input signal quality, adjust known channel losses at the transmitter and restore signal integrity at the receiver. It offers double termination or open drain output mode by output selection pin.

TMDS output can shut down to reduce power dissipation by sink side HPD detection status. DDC 2:1 Mux and ARC drivers are integrated. PI3HDX621 is specified to operate over -40 to 85°C temperature range with 8kV ESD protection pins.

Block Diagram



Features

- HDMI 1.4b compliant for sink side application
- Operation up to 3.4 Gbps per lane
- Support up to 48-bit per pixel Deep Color
- Fast switching between two TMDS input ports
- Programmable equalizer, emphasis and amplitude settings to achieve optimized TMDS signal integrity
- Each input can be AC coupled or DC coupled, while the output will maintain TMDS compliance DC coupled, current steering signals
- Idle clock detection function for output squelch and auto standby
- Integrated ARC (Audio Return Channel) and DDC Mux
- Integrated ESD protection on I/O pins to connector
- 3.3V single power supply
- 8 KV contact per IEC61000-4-2, level 4, 8 KV HBM
- Industrial temperature coverage
- Packaging (Pb-free & Green):
 - 48-contact LQFP (FB48)

Application

- Notebook computers, Set Top Box
- A/V Home Entertainment Systems
- Dongle and Switches

Typical Application Diagram

