

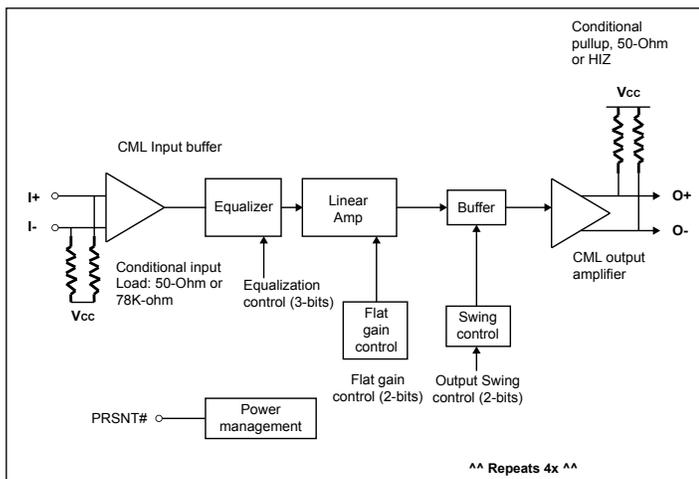
PI3HDX1204D

6Gbps 4-Channel HDMI2.0 Linear ReDriver

Features

- Supports 6Gbps HDMI2.0 signals with non-blocking linear redriver via I²C or pin control settings
- Supports 4 differential channels
- Supports 10dB gain compensation @3GHz
- Independent channel configuration of receiver equalization, output swing and flat gain in I²C control mode
- Transparent to link training, rate and coding
- 220mW per channel power dissipation with 1200mVpp output swing
- Supports back current leakage free (Ioff) on I²C and HDMI output pins
- Support I²C slave mode setting
- Pin strap value latched into I²C register
- 3-bit selectable address bit for I²C
- Supply Voltage: 3.3V±0.3V
- Industrial Temperature Range: -40°C to 85°C
- Totally Lead-Free & Fully RoHS Compliant (Notes 1 & 2)
- Halogen and Antimony Free. "Green" Device (Note 3)
- For automotive applications requiring specific change control (i.e. parts qualified to AEC-Q100/101/200, PPAP capable, and manufactured in IATF 16949 certified facilities), please [contact us](mailto:contact@diodes.com) or your local Diodes representative.
<https://www.diodes.com/quality/product-definitions/>

Block Diagram



Description

Diodes' PI3HDX1204D is a multi-data rate, 4-differential channel ReDriver™. The device provides programmable linear equalization, output swing and flat gain, by either pin strapping option or I²C Control, to optimize performance over a variety of physical mediums by reducing Inter-symbol interference.

The PI3HDX1204D supports four 100Ω Differential CML data I/O's and extends the signals across distant data pathways on the user's platform.

The integrated equalization circuitry provides flexibility with signal integrity of the signal before the ReDriver, whereas the integrated linear amplifier/buffer circuitry provides flexibility with signal integrity of the signal after the ReDriver.

Applications

- Laptop and Desktop PC
- Gaming Console
- DTV and Set-top-Box
- Docking Station and Peripherals

Ordering Information

Part Number	Package Code	Description
PI3HDX1204DZHEX	ZH	42-Contact, Thin Fine Pitch Quad Flat No-Lead (TQFN)

Notes:

1. No purposely added lead. Fully EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant.
2. See <https://www.diodes.com/quality/lead-free/> for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
3. Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
4. E = Pb-free and Green
5. X suffix = Tape/Reel