

### Features

- VESA DisplayPort 1.1a and 1.2 standard compliant for RBR 1.62Gbps, HBR 2.7Gbps /HBR2 5.4Gbps data rate
- Full Auto and Manual DP1.2 test mode support for the user friendly system diagnosis
- FAUX signal pass-through with low signal degradation
- AUX listener supports link training, output level and pre-emphasis configuration during the link initialization with "Sink Request Test Mode"
- Fixed and Dynamic EQ configuration based on AUX link training requirement
- Auto equalization based on signal and pre-emphasis level in AUX configuration register
- Support Hot Plug and Cable Detection function
- AUX/DDC combo switch
- Individual lane power down state automatically to enter low power mode when no DP signal is present or no sink device is inserted
- Support dedicated pins or SMBus control mode for Equalization (EQ) setting control
- Internally Biased AC coupled in AUX channel
- Single 3.3V or Dual 1.5V/3.3V power sources

- Integrated ESD protection Independent squelch per lane (auto power down)
- 48-contact TQFN, 7mm x 7mm

### Description

PI3EQXDP1201 is the Pericom's latest DisplayPort1.2 compliant ReDriver (Repeater) to support signal jitter reduction caused by noisy transmission line effects in the high speed DisplayPort 5.4Gbps data.

It has DisplayPort Aux decoder, decipher the link training message and automatically configure the signal outputs with the optimum pre-emphasis and output swing level. In pin control, Auto EQ mode 1/2/3 and 2 bit of pre-emphasis setting provide 12 EQ steps. Programmable SMBus mode provides 16 EQ steps.

PI3EQXDP1201 is intended for use in any DP signal compliance system including notebook PC and docking stations, graphic cards and other high-speed AC-coupled digital video system.

### Applications

- Notebook computers
- PC docking station
- Dongle, switch boxes
- Long DisplayPort cables

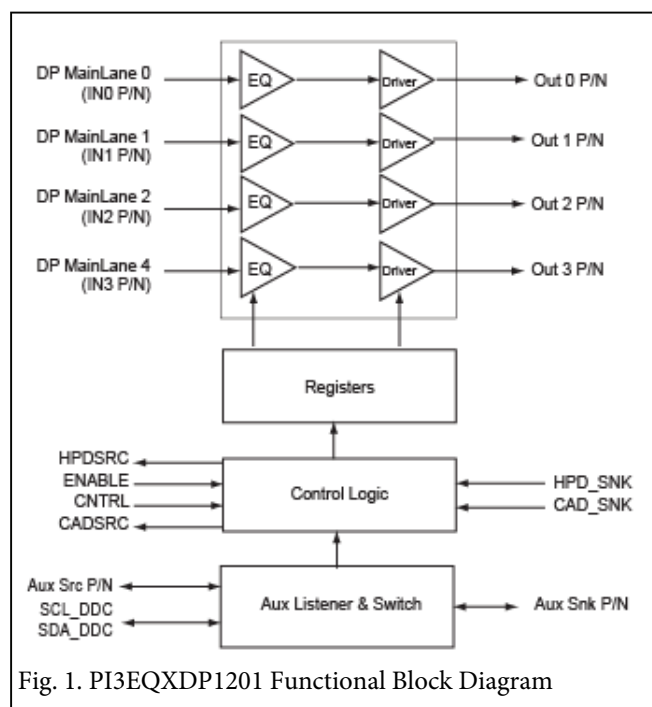


Fig. 1. PI3EQXDP1201 Functional Block Diagram

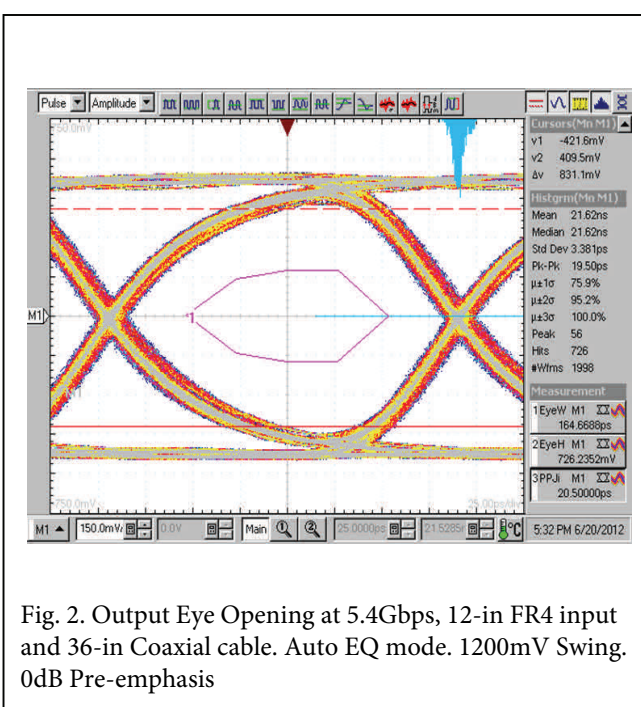


Fig. 2. Output Eye Opening at 5.4Gbps, 12-in FR4 input and 36-in Coaxial cable. Auto EQ mode. 1200mV Swing, 0dB Pre-emphasis

## Ordering Information

Ordering Code	Package Code	Package Description
PI3EQXDP1201ZBE	ZB	Pb-free & Green, 48-pin TQFN

### Notes:

1. Thermal characteristics can be found on the company web site at [www.pericom.com/packaging/](http://www.pericom.com/packaging/)
2. "E" = Pb-free and Green, Adding an "X" suffix = Tape/Reel

## Related Products

Part Number	Product Description
PI3VDP1430	ActiveEye™ Dual Mode DisplayPort to HDMI Level Shifter and Re-driver
PI3HDMI412AD	ActiveEye™ 1:2 HDMI1.4 compliant Splitter/Re-driver
PI3HDMI336	ActiveEye™ 3:1 HDMI1.4 Switch/Re-driver with I2C control and ARC
PI3HDMI511	ActiveEye™ HDMI1.4 ReDriver for Source-side application
PI3HDMI611	ActiveEye™ HDMI1.4 ReDriver for Sink-side application
PI3HDMI521	ActiveEye™ 2:1 HDMI1.4 Switch/Re-driver with ARC and Fast Switching support for Source-side Application
PI3HDMI621	ActiveEye™ 2:1 HDMI1.4 Switch/Re-driver with ARC and Fast Switching support for Sink-side Application
PI3VDP3212	2-Lane DisplayPort1.2 Compliant Switch
PI3VDP12412	4-Lane DisplayPort1.2 Compliant Switch

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