

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

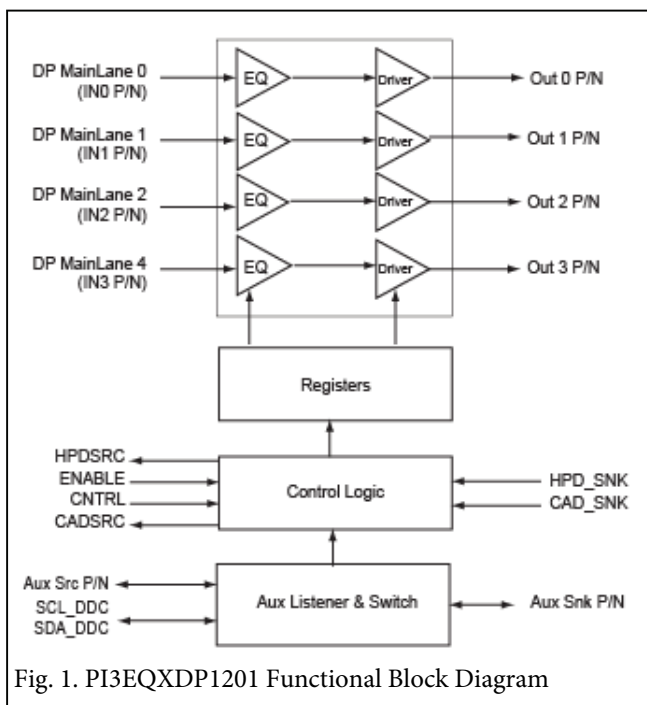


Fig. 1. PI3EQXDP1201 Functional Block Diagram

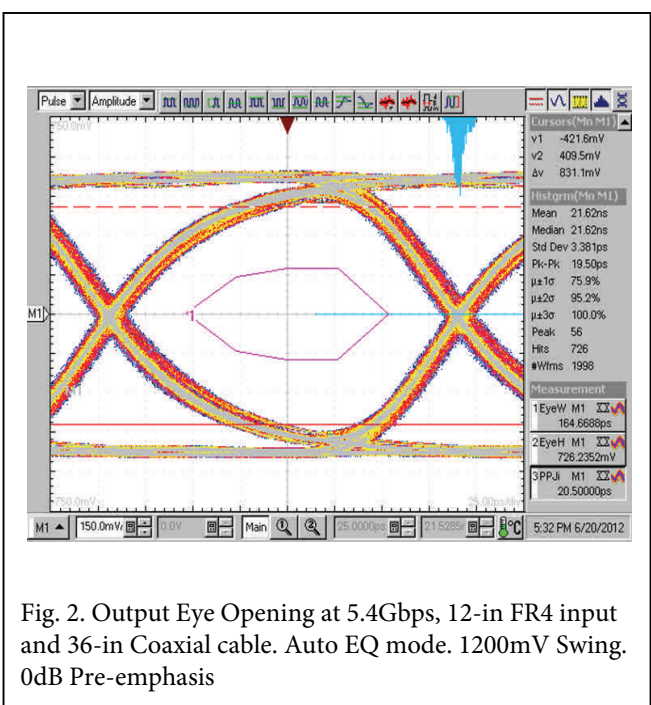


Fig. 2. Output Eye Opening at 5.4Gbps, 12-in FR4 input and 36-in Coaxial cable. Auto EQ mode. 1200mV Swing, 0dB Pre-emphasis

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/
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

INFORMATION IN THIS DOCUMENT IS PROVIDED IN CONNECTION WITH PERICOM PRODUCT. NO LICENSE, EXPRESS OR IMPLIED, BY ESTOPPEL OR OTHERWISE, TO ANY INTELLECTUAL PROPERTY RIGHTS IS GRANTED BY THIS DOCUMENT. EXCEPT AS PROVIDED IN PERICOM'S TERMS AND CONDITIONS OF SALE FOR SUCH PRODUCTS INCLUDING LIABILITY OR WARRANTIES RELATING TO FITNESS FOR A PARTICULAR PURPOSE, MERCHANTABILITY, OR INFRINGEMENT OF ANY PATENT, COPYRIGHT OR OTHER INTELLECTUAL PROPERTY RIGHT.

Pericom may make changes to specifications and product descriptions at any time, without notice. Designers must not rely on the absence or characteristics of any features or instructions marked "reserved" or "undefined". Pericom reserves these for future definition and shall have no responsibility whatsoever for conflicts or incompatibilities arising from future changes to them. The products described in this document may contain design defects or errors known as errata which may cause the product to deviate from published specification. Current characterized errata are available on request.

Contact your local Pericom Sales office or your distributor to obtain the latest specifications and before placing your product order.

Copyright 2012 Pericom Corporation. All rights reserved. Pericom and the Pericom logo are trademarks of Pericom Corporation in the U.S. and other countries.