Description

The HXT5112A VCSEL driver array is a key component for compact, robust and low-power optical transmitter modules. In conjunction with the VCSEL array, the chip handles the complete digital-to-optical conversion, including CML input, laser driver, drive control and supervision. Standard silicon technology and a small number of additional components allow for cost-effective and compact assemblies.

Typical Applications

- IEEE 802.3ba Ethernet transceivers
- Infiniband QDR & FDR active cables
- Proprietary multi-channel optical modules

Features

- Low-power consumption of 46mW per channel while delivering 5mA average and 5mA modulation current
- Compatible with common cathode and isolated VCSEL arrays
- 2-wire interface control and symmetric pad design maximize module design flexibility
- 10mA average and 10mA modulation current maximum
- 15mA burn-in current maximum
- InfiniBand QDR/FDR compliant
- 100G Base-SR10 compliant
- Solder bump version available

Ordering Information

Part	Temp. Range	Pin-Package
HXT5112A -DNT	0°C to +85°C	Bare Die 2.05mm x 3.65mm
HXT5112A -BNT	0°C to +85°C	Bare Die with solder bumps for flip chip assembly

For price, delivery schedules, and to place orders, contact IDT at www.IDT.com/go/sales
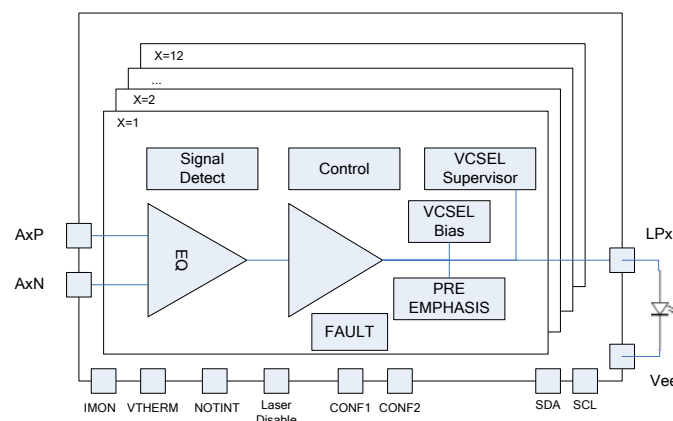
Block Diagram

Figure 1. Block Diagram

January 22, 2018

Revision History

Date	Notes
April 12, 2011	Initial release.
July 4, 2011	Lot of updates and fixes.
September 1, 2011	Remove bump related spec and add some minor modifications.
October 12, 2011	Add pad sizes and die layout details.
November 23, 2011	Correct types for bits 0 & 1 in register 0X05.
January 25, 2012	Add solder bump specification.
February 27, 2012	Add typical values for Icc1 and Icc2. Revised solder bump specification.
March 12, 2013	Administrative error fix.
January 22, 2018	Changed to IDT Branding.

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Contact Information

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