General Description

The HXT8204 VCSEL driver array is a key component for compact, robust, 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.

Applications

- 100G Ethernet SR4 modules
- 100G Ethernet AOC
- InfiniBand EDR transceivers
- InfiniBand EDR active cables
- Proprietary multi-channel optical modules

Features

- Low power consumption of 113mW 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
- Up to 10 mA Average and 10 mA modulation current
- QSFP MSA compliant

Ordering Information

Part	Temp Range	Pin-Package
HXT8204-DNT	0°C to +85°C	Bare Die* 1.950mm x 1.575mm
HXT8204-EVB	Room Temp	Evaluation Board
	•	

* Die Design Size; Actual die size may be slightly larger

For price, delivery schedules, and to place orders, please contact IDT: <u>www.IDT.com/go/sales</u>

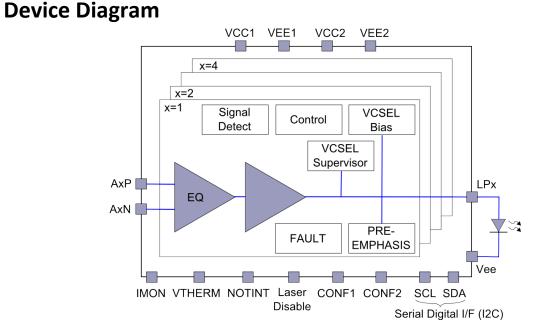


Figure 1: Device diagram



IMPORTANT NOTICE AND DISCLAIMER

RENESAS ELECTRONICS CORPORATION AND ITS SUBSIDIARIES ("RENESAS") PROVIDES TECHNICAL SPECIFICATIONS AND RELIABILITY DATA (INCLUDING DATASHEETS), DESIGN RESOURCES (INCLUDING REFERENCE DESIGNS), APPLICATION OR OTHER DESIGN ADVICE, WEB TOOLS, SAFETY INFORMATION, AND OTHER RESOURCES "AS IS" AND WITH ALL FAULTS, AND DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT OF THIRD PARTY INTELLECTUAL PROPERTY RIGHTS.

These resources are intended for developers skilled in the art designing with Renesas products. You are solely responsible for (1) selecting the appropriate products for your application, (2) designing, validating, and testing your application, and (3) ensuring your application meets applicable standards, and any other safety, security, or other requirements. These resources are subject to change without notice. Renesas grants you permission to use these resources only for development of an application that uses Renesas products. Other reproduction or use of these resources is strictly prohibited. No license is granted to any other Renesas intellectual property or to any third party intellectual property. Renesas disclaims responsibility for, and you will fully indemnify Renesas and its representatives against, any claims, damages, costs, losses, or liabilities arising out of your use of these resources. Renesas' products are provided only subject to Renesas' Terms and Conditions of Sale or other applicable terms agreed to in writing. No use o any Renesas resources expands or otherwise alters any applicable warranties or warranty disclaimers for these products.

(Disclaimer Rev.1.0 Mar 2020)

Corporate Headquarters

TOYOSU FORESIA, 3-2-24 Toyosu, Koto-ku, Tokyo 135-0061, Japan www.renesas.com

Trademarks

Renesas and the Renesas logo are trademarks of Renesas Electronics Corporation. All trademarks and registered trademarks are the property of their respective owners. **Contact Information**

For further information on a product, technology, the most up-to-date version of a document, or your nearest sales office, please visit: <u>www.renesas.com/contact/</u>