General Description

The HXT5004A 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

- 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
- 10 mA Average and 10 mA Modulation current max.
- 12 mA burn-in current max.
- QSFP MSA compliant
- InfiniBand QDR/FDR compliant
- 40G Base-SR4 compliant
- Solder bump version available

Ordering Information

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<th>Part</th>
<th>Temp Range</th>
<th>Pin-Package</th>
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<td>HXT5004A-DNT</td>
<td>0°C to +95°C</td>
<td>Bare Die – Waffle Pack</td>
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For price, delivery schedules, and to place orders, please contact IDT: [www.IDT.com/go/sales](http://www.IDT.com/go/sales)

Device Diagram

Figure 1: Device diagram