

# PE8002

# **Product Description**

12-channel low power VCSEL laser driver for applications operating at data rates from 155 Mbps to 3.125 Gbps. Features include eye safety shutdown control and programmable modulation and bias current.

#### **Product Benefits**

- Allows for compact space saving parallel optical receiver module designs.
- Eases module and system design by reducing power supply and cooling requirements.
- Enables precision tuning of multi-channel links providing lowest power operation.
- Provides superior jitter performance and integration capabilities.
- Simplifies module and system designs.

# **Applications**

- Very Short Reach OC -192 Links
- Gigabit Ethernet Optical Links
- Fibre Channel Optical Links
- Infiniband Optical Links
- · Proprietary multi-channel interconnects
- High-Speed Optical Interconnects
  - o Rack-to-Rack
  - o Shelf-to-Shelf
  - Board-to-Board

#### **Features**

- Four independent channels operating from 155 Mbps to 3.125 Gbps on a single die.
- Low power 100 mW / channel architecture.
- User programmable 7-bit DAC for I<sub>bias</sub> and I<sub>mod</sub> control enabling fine-tuning of VCSEL output power.
  - I<sub>bias</sub> resolution of 0.05 mA
  - I<sub>mod</sub> resolution of 0.1 mA
- Fabricated in Peregrine's patented high isolation UTSi<sup>®</sup> SOS CMOS process.
- Operates from a single 3.3 V supply.

## Availability

This product will be available in Q3, 2001 (Subject to Change).



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# **Data Sheet Identification**

## Advance Information

The product is in a formative or design stage. The data sheet contains design target specifications for product development. Specifications and features may change in any manner without notice.

#### Preliminary Specification

The data sheet contains preliminary data. Additional data may be added at a later date. Peregrine reserves the right to change specifications at any time without notice in order to supply the best possible product.

## **Product Specification**

The data sheet contains final data. In the event Peregrine decides to change the specifications, Peregrine will notify customers of the intended changes by issuing a PCN (Product Change Notice).

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