

# VSC7966

## 155 Mbps to 1.25 Gbps Laser Driver and Post Amplifier



**FEATURES:**

- ▶ Integrated Laser Driver and Limiting Amplifier
- ▶ Digital Control Interface
- ▶ Selectable Resistance on Monitor Diode Input
- ▶ Laser Driver Crossing Point Control
- ▶ Built-in Eye Safety Support

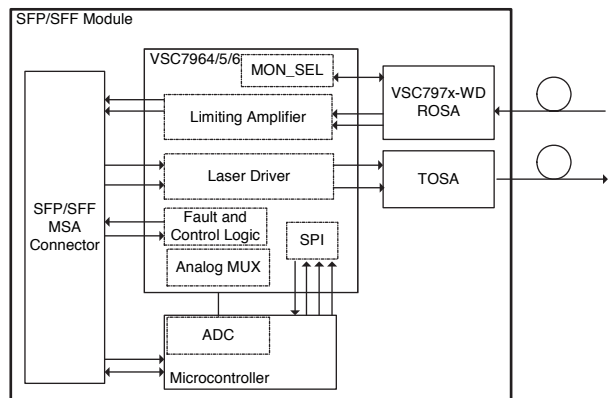
**BENEFITS:**

- ▶ Reduces Board Space and Simplifies the Design
- ▶ Provides Advance System Diagnostics, Enabling Full Support of SFF-8472
- ▶ Improves Accuracy of the Monitor Diode Input by Allowing the User to Select the Resistance and Capacitance in the Input
- ▶ Enables the User to Adjust the Level of the Crossing Point on the Laser Driver Output
- ▶ No External Components are Required to Meet IEC-60825 Eye Safety Specifications

**SPECIFICATIONS:**

- ▶ Package Size: 5 mm × 5 mm QFP-N
- ▶ Maximum Modulation = 80 mA
- ▶ Typical Core Power = 330 mW

**BLOCK DIAGRAM:**



### GENERAL DESCRIPTION:



The VSC7966 device is a multirate 1.25 Gbps integrated laser driver and limiting amplifier for SONET/SDH, Fast Ethernet, and Gigabit Ethernet applications optimized to reduce module cost. The device is intended to drive distributed feedback (DFB) and Fabry Perot (FP) lasers. A standard SPI port is provided for programming integrated digital to analog converters for laser bias current, modulation current, average power, and the limiting amplifier loss of signal threshold. The VSC7966 device is equipped with SFP-compliant fault indicators, redundant disable control, Automatic Power Control, temperature sensor, various signal monitors, and robust eye safety features. The VSC7966 device is available in a 5 mm x 5 mm 32-pin QFP-N plastic package.

#### Trademarks <sup>TM</sup>

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