TRANSPORT PRODUCTS

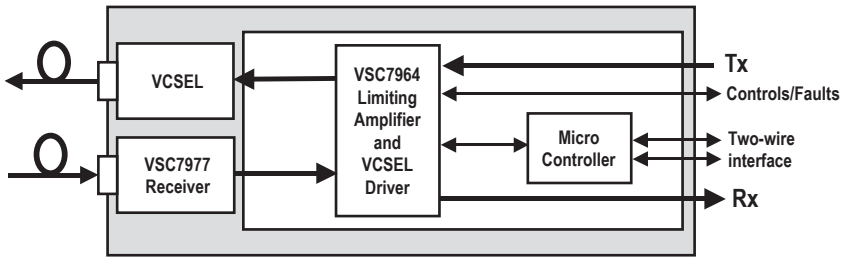
VSC7964

VITESSE

1/2/4 Gbps Integrated VCSEL Driver and Limiting Amplifier



APPLICATION DIAGRAM:



FEATURES:	BENEFITS:
Rate Selection	Allows the User to Optimize the Bandwidth of the Limiting Amplifier and TIA for a Given Data Rate, Improving the Optical Input Sensitivity at Lower Data Rates, and Provides Superior Interoperability with Legacy Optical Devices
Optical Power Monitor	Automatically Adjust Bias Current, Ensuring a Constant Average Optical Power on Temperature and Time
Dynamic Negative Peaking Control	Adjustable Negative Peaking Control to Improve VCSEL Edge Speed
Digital Programming Interface	Enables the Micro-controller to Directly Read and Write the the VSC7964 Registers, Allowing for Expanded Device Control and Enhanced Fault Coverage
Integrated Digital to Analog Converters (DACs) and Temp Sensor	Eliminates the Need for External Components Saving Board Space and Simflifying the Layous
Built-in Support for IEC-60825 Eye Safety	Enables the Customer to Meet the International Electrotechnical Commission (IEC) Safety of Optical Fibre Communication Systems Eye Safety Epecifications.
Extended Operating Temperature	Support Industrial Temperature Applications

SPECIFICATIONS:

- Supported Data Rates: 1Gbps to 4.25Gbps
- Transmitter and Receiver Rise/Fall Time: 40ps
- Modulation Current: 2mA to 15mA
- Supply Voltage: 3.3V
- Operating Temperature Range from -40C to 100C (Case)
- SFP/SFF-8472 Compliant Disable and Faults

APPLICATIONS:

- Gigabit Ethernet Transceivers
- Fibre Channel Transceivers (1x, 2x and 4x)
- Infiniband Transceivers

SFP PRO

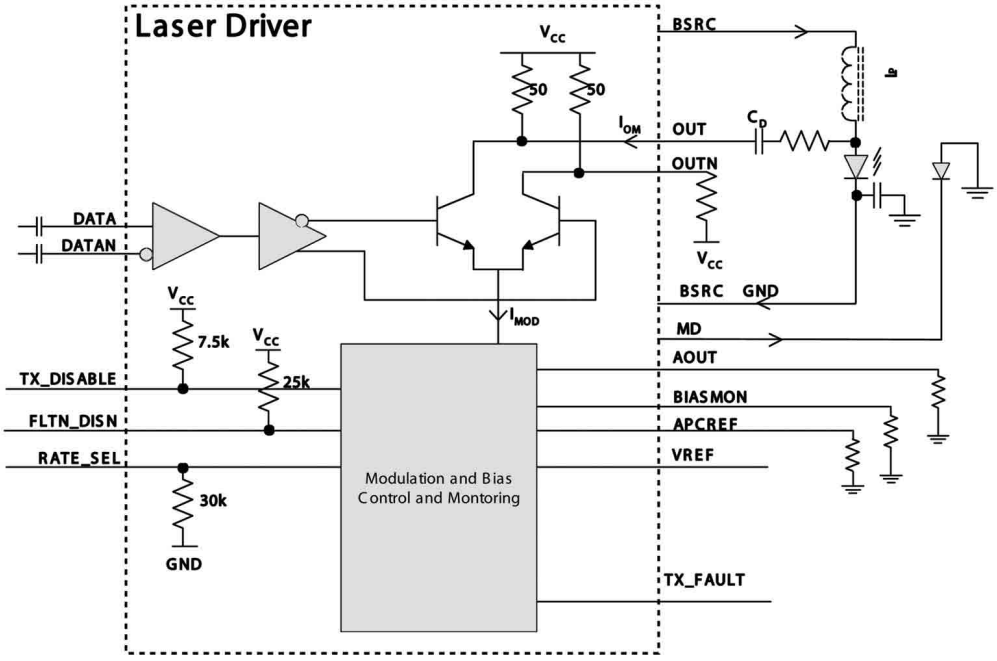
VSC7964

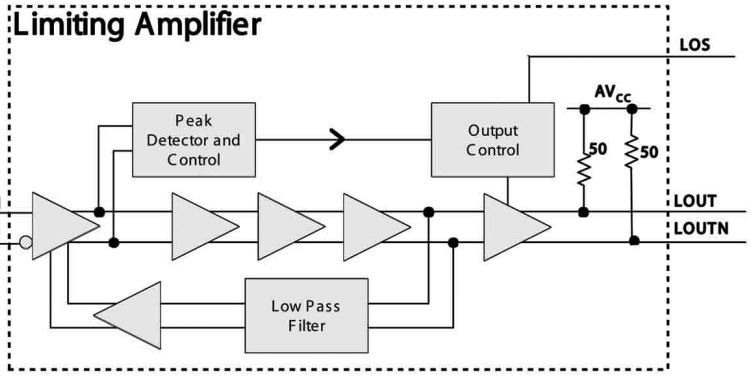
1/2/4 Gbps Integrated VCSEL Driver and Limiting Amplifier

GENERAL DESCRIPTION:

The VSC7964 is a multirate 4.25 Gbps integrated Vertical Cavity Surface Emitting Laser (VCSEL) driver and limiting amplifier for Gigabit Ethernet and Fibre Channel applications optimized to reduce SFP module cost. A standard SPI port is provided for programming integrated digital-to-analog converters for laser bias current, modulation current, power, modulation peaking current, and the limiting amplifier loss of signal threshold. The VSC7964 is equipped with SFP-compliant fault indicators, redundant disable control, Automatic Power Control, temperature sensor, voltage reference, various signal monitors, and robust eye safety features. A single bidirectional pin between the VSC7964 and the VSC7977 transimpedance amplifier programs the receiver bandwidth and monitors the received optical power. This allows the VSC7964 to provide an accurate indicator of received power and to select the TIA bandwidth without increasing TO-CAN pin count. The VSC7964 is available in a 6mm x 6mm 40-pin QFP-N plastic package.

BLOCK DIAGRAMS:





For more information on Vitesse Products visit the Vitesse web site at www.vitesse.com or contact Vitesse Sales at (800) VITESSE or sales@vitesse.com

VITESSE

741 Calle Plano
Camarillo, CA 93012, USA
Tel: +1 805.388.3700
Fax: +1 805.987.5896
www.vitesse.com

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