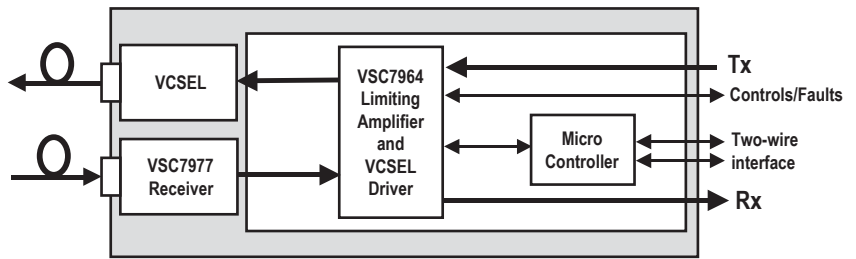


VSC7964

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



APPLICATION DIAGRAM:



FEATURES:

- ▶ Rate Selection
- ▶ Optical Power Monitor
- ▶ Dynamic Negative Peaking Control
- ▶ Digital Programming Interface
- ▶ Integrated Digital to Analog Converters (DACs) and Temp Sensor
- ▶ Built-in Support for IEC-60825 Eye Safety
- ▶ Extended Operating Temperature

BENEFITS:

- ▶ 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
- ▶ Automatically Adjust Bias Current, Ensuring a Constant Average Optical Power on Temperature and Time
- ▶ Adjustable Negative Peaking Control to Improve VCSEL Edge Speed
- ▶ Enables the Micro-controller to Directly Read and Write the the VSC7964 Registers, Allowing for Expanded Device Control and Enhanced Fault Coverage
- ▶ Eliminates the Need for External Components Saving Board Space and Simplifying the Layout
- ▶ Enables the Customer to Meet the International Electrotechnical Commission (IEC) Safety of Optical Fibre Communication Systems Eye Safety Specifications.
- ▶ 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



