EL6290C - Product Brief

Laser Diode Driver with Waveform Generator

élantec

HIGH PERFORMANCE ANALOG INTEGRATED CIRCUITS

Features

- Complete programmable laser diode driver
- 250mA maximum output
- 8bit x 8bit multiplying DAC output provides 8bit full scale adjustment and 8bit resolution at any full scale output
- 0.5ns timer resolution
- Two laser outputs allows read/write DVD and CD combinations
- Programmable waveform values support 2.6GB DVD-RAM, 4.7GB DVD-RAM, DVD-R, DVD+RW, DVD-RW, CD-RW, and CD-R
- Analog input supports APC
- HFM oscillator programmable to 100mAp-p from 200 to 500MHz
- PLL allows reduced-frequency clock on flex cable
- Separate serial input works up to 25Mb/sec

Applications

- Combination DVD writable and CD writable drives
- DVD Camcorders
- DVD Video Recorders

Ordering Information

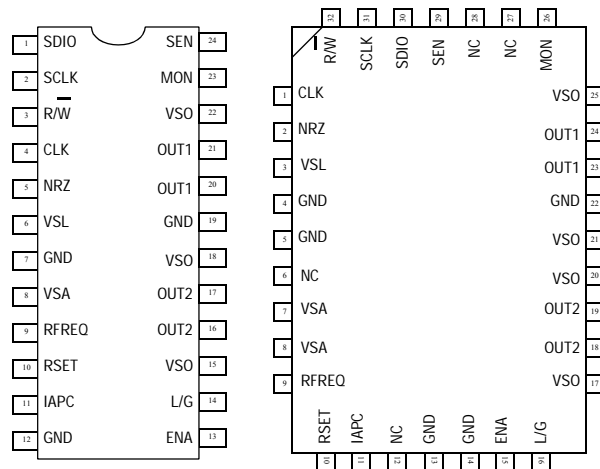| Part No	Temp. Range	Package	Outline #
EL6290CU	0°C to +75°C	24-Lead QSOP	MDP00040
EL6290CL	0°C to +70°C	32-Lead QFN	MDP0045
EL6290CJ	0°C to +70°C	32-Lead LPP	MDP0046

General Description

The EL6290C is a highly integrated laser diode driver designed to support multi-standard writable optical drives. It accomplishes this by incorporating a waveform generator wherein the diode currents and timing details can be programmed before operation. The data input circuitry inspects the NRZ serial data waveform and generates programmed waveforms in recognition of 3, 4, 5, or 6 or more clock periods of space changing to 3, 4, 5, or 6 or more clock periods of mark, and vice versa.

This programmable architecture allows reprogramming of the timers to support different media, DVD or CD standards, and different speeds. The programming is accomplished through a serial interface port. Two outputs are provided to support dual-laser multi-standard optical heads.

The EL6290C operates on a 5V supply, but has a separate logical interface supply for 3.3V interface operation.

The EL6290C is availiable in a 24-lead QSOP, or in a 32-lead QFN package for improved thermal performance and reduced board area usage.

Connection Diagrams

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General Disclaimer

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WARNING - Life Support Policy

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