

Features

- Complete programmable laser diode driver
- 350mA maximum total output
- 8bit x 8bit multiplying DAC output provides 8bit full scale adjustment and 8bit resolution at any full scale output
- 120ps timer resolution
- Blu-Ray Disc standard
- Two analog inputs support slope and read APC
- HFM oscillator programmable to 100mA_{P-P} from 100MHz to 500MHz
- PLL allows reduced-frequency clock on flex cable
- Separate serial input works up to 25MHz
- Dual sampled IV amplifier with programmable sample select and gain select
- Programmable HFM offset when HFM is off

Applications

- Blu-Ray ultra-density optical (UDO) drives
- Blu-Ray consumer HDTV video recorders

Ordering Information

Part No	Package	Tape & Reel	Outline #
EL6900CL	38-Pin LPP	-	MDP0046

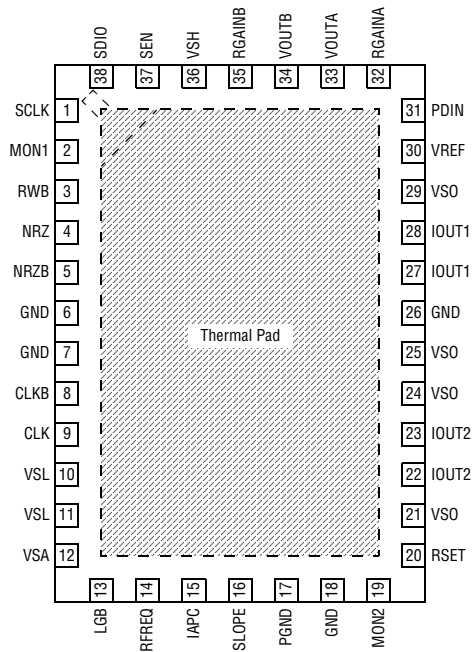
General Description

The EL6900C is a highly integrated laser diode driver designed to support Blu-Ray 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 2, 3, 4, or 5 or more clock periods of space changing to 2, 3, 4, or 5 or more clock periods of mark, and vice versa. The part also has an IV amplifier with concurrent read and write sampling. The gains of the IV amplifier are programmable, eliminating the need for external potentiometers.

The architecture allows reprogramming of all output waveform parameters. The programming is accomplished through a serial interface port. The clock and NRZ inputs can be either standard CMOS or LVDS, selectable through a program bit.

The EL6900C operates on a 5V supply for the analog circuits and a 3.3V supply for the digital circuits.

Connection Diagram



EL6900C

Laser Diode Driver with Waveform Generator

EL6900C

PRODUCT BRIEF

Effective May 15, 2002, Elantec, a leader in high performance analog products, is now a part of Intersil Corporation.

All Intersil U.S. products are manufactured, assembled and tested utilizing ISO9000 quality systems. Intersil Corporation's quality certifications can be viewed at www.intersil.com/design/quality

Intersil products are sold by description only. Intersil Corporation reserves the right to make changes in circuit design, software and/or specifications at any time without notice. Accordingly, the reader is cautioned to verify that data sheets are current before placing orders. Information furnished by Intersil is believed to be accurate and reliable. However, no responsibility is assumed by Intersil or its subsidiaries for its use; nor for any infringements of patents or other rights of third parties which may result from its use. No license is granted by implication or otherwise under any patent or patent rights of Intersil or its subsidiaries.

For information regarding Intersil Corporation and its products, see www.intersil.com



Sales Office Headquarters

NORTH AMERICA

Intersil Corporation
7585 Irvine Center Drive
Suite 100
Irvine, CA 92618
TEL: 949-341-7000
FAX: 949-341-7123

Elantec
675 Trade Zone Blvd.
Milpitas, CA 95035
TEL: 408-945-1323
800: 888-ELANTEC
FAX: 408-945-9305

EUROPE

Intersil Europe Sarl
Avenue William Fraisse 3
1006 Lausanne
Switzerland
TEL: +41-21-6140560
FAX: +41-21-6140579

ASIA

Intersil Corporation
Unit 1804 18/F Guangdong Water Bldg.
83 Austin Road
TST, Kowloon Hong Kong
TEL: +852-2723-6339
FAX: +852-2730-1433

September 5,