

**Features**

- Read + 2 write channel laser driver with oscillator and fast I/V amplifier plus a separate ROM laser driver with oscillator
- 200V/μs I/V amplifier
- 100X gain, 100mA low noise read channel
- 250X gain, 250mA and 150X gain, 150mA write channels
- 500MHz, 100mA<sub>p-p</sub> oscillator
- Write rise/fall times = 0.8ns
- Single +5V supply

**Applications**

- Combo CD-RW + DVD-ROM
- CD-RW to 16X
- CD-R to 32X
- Writable optical disk drives

**Ordering Information**

| Part No  | Temp. Range    | Package     | Outline # |
|----------|----------------|-------------|-----------|
| EL6240CU | -40°C to +85°C | 24-Pin QSOP | MDP0040   |
| EL6240CL | -40°C to +85°C | 24-Pin LPP  | MDP0046   |

**General Description**

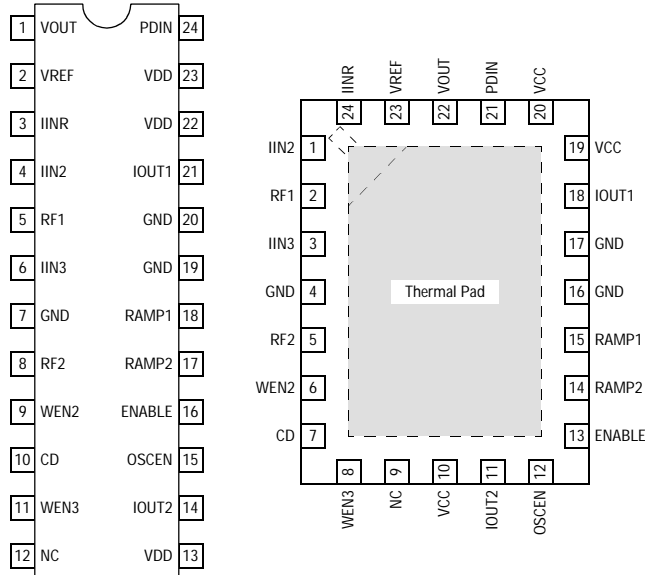
The EL6240C is a combination read + 2 write level laser driver and IV amplifier, with an extra read + oscillator ROM channel for use in dual-laser ‘combo’ applications. A separate (amplitude and frequency) oscillator modulates the selected output for laser noise reduction during read or write.

The CD pin, when high, selects the CD (write) laser. Positive current supplied to the IIN lines, through a user selected external resistor, allow the full scale range of each amplifier to be matched to the full scale range of the users control DACs. When the write laser is selected, and the WEN pins are switched low, the respective current is summed to the output with 1ns rise and fall times. When the CD pin is low, the ROM laserdiode is driven by output I<sub>OUT2</sub>, and no current will appear at output I<sub>OUT1</sub>.

The 100mA<sub>p-p</sub> (max) oscillator is switched on and off by the OSCEN line. The CD line allows the oscillator to operate at different amplitudes and frequencies for each laser.

The entire chip is powered down when ENABLE is low. The user can define the gain of the I/V amplifier. With a slew rate of 200V/μs, the I/V amplifier can normally settle to 1% within 30ns.

**Connection Diagrams**



Note: All information contained in this data sheet has been carefully checked and is believed to be accurate as of the date of publication; however, this data sheet cannot be a "controlled document". Current revisions, if any, to these specifications are maintained at the factory and are available upon your request. We recommend checking the revision level before finalization of your design documentation.

# ***EL6240C - Product Brief***

*Dual Laser Driver with APC Amp*

## **General Disclaimer**

Specifications contained in this data sheet are in effect as of the publication date shown. Elantec, Inc. reserves the right to make changes in the circuitry or specifications contained herein at any time without notice. Elantec, Inc. assumes no responsibility for the use of any circuits described herein and makes no representations that they are free from patent infringement.

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HIGH PERFORMANCE ANALOG INTEGRATED CIRCUITS

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